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<211> 322

<212> PRT

<213> Homo sapiens

<400> 5832

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<210> 5839

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<212> DNA

<213> Homo sapiens

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 Arg Arg Glu Arg Glu Leu Ser Trp Phe Pro Phe His Leu Phe Ser Gly
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 Cys Phe Lys Ala Asn Ile Pro Val Pro Asn Val Leu Cys Gly Leu Asn
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 <212> DNA
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<212> DNA
<213> Homo sapiens
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<400> 5843

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<213> Homo sapiens

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<213> Homo sapiens

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 <211> 154
 <212> PRT
 <213> Homo sapiens

<400> 5850
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 35 40 45
 Gly Pro Ile His Ile Ala Glu Gly Gly Arg Gly Arg Pro Pro Gly
 50 55 60
 Ser Ala Ser Asn Pro Gln Pro Pro Gly Ser Pro His Cys Pro Ser Ala
 65 70 75 80
 Gly Leu Ser Pro Val Pro Gly Val Gly Gly Arg Gln Cys Pro Gly Thr
 85 90 95
 Val Pro Arg Val Arg Arg Pro Gly Leu Ala Gly His Pro Val Thr His
 100 105 110
 Arg Ile Asn Arg Lys Thr Ala Ser Pro Pro Asn Leu Cys Pro Arg His
 115 120 125
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 Gln Arg Thr Leu Thr Pro Pro Arg Gly Ala
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<210> 5851
 <211> 488

<212> DNA

<213> Homo sapiens

<400> 5851

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360
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<211> 82

<212> PRT

<213> Homo sapiens

<400> 5852

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20           25           30
Leu Thr Lys Gly Thr Ser Ala Ala His Leu Asn Ser Met Glu Val Thr
35           40           45
Thr Glu Asp Thr Ser Arg Thr Asp Ala Tyr Glu Ser Tyr Lys Lys Lys
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Asp Tyr Thr Gln Val Asp Tyr Leu Ile Asn Gly Met Tyr Ala Asp Ser
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<210> 5853

<211> 487

<212> DNA

<213> Homo sapiens

<400> 5853

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120
tcaggcccag cagctccatg gaggacgccg gcgaggacce caccacgttt gctgcccact
180

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300
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487

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<211> 68
<212> PRT
<213> Homo sapiens

<400> 5854
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Thr Pro Ser Gly Arg Ser Gly Pro Ala Ala Pro Trp Arg Thr Pro Ala
35 40 45
Arg Thr Pro Pro Arg Leu Leu Pro Thr Leu Cys Pro Val Thr Pro Val
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Ser Trp Pro Leu
65

<210> 5855
<211> 362
<212> DNA
<213> Homo sapiens

<400> 5855
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240
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360
an
362

<210> 5856
<211> 113
<212> PRT

<213> Homo sapiens

<400> 5856

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Val Thr Ala Pro Leu Cys Ser Ala Asp Pro Leu Leu Ala Val Pro Pro
      20           25           30
Ser Pro Pro Asp Pro Pro Ala Gly Thr Cys Trp Gly Leu Trp Gly Pro
      35           40           45
Lys Arg Glu Gly Val Asn Glu Val Val Ala Glu Val Leu Leu Ala Ala
      50           55           60
His Glu Gly Val Gly Asp Gln Gly Glu Ala Gly Ala His Pro Val Leu
      65           70           75           80
Ser Asp Ala Gly Leu Leu Val Leu Gly Leu Arg Ala Ala Leu Gly Glu
      85           90           95
His Gln Ala His Leu Gly Ser Ala Leu Asn Glu His Gln Arg Val Leu
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<210> 5857

<211> 1751

<212> DNA

<213> Homo sapiens

<400> 5857

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420
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720
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840

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<210> 5858
 <211> 434
 <212> PRT
 <213> Homo sapiens

<400> 5858
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 Gly Gly Gln Gly Arg Gly Gly Glu Lys Pro Pro His Leu Ala Ala Leu
 35 40 45
 Ile Leu Ala Arg Gly Gly Ser Lys Gly Ile Pro Leu Lys Asn Ile Lys
 50 55 60
 His Leu Ala Gly Val Pro Leu Ile Gly Trp Val Leu Arg Ala Ala Leu
 65 70 75 80
 Asp Ser Gly Ala Phe Gln Ser Val Trp Val Ser Thr Asp His Asp Glu
 85 90 95
 Ile Glu Asn Val Ala Lys Gln Phe Gly Ala Gln Val His Arg Arg Ser
 100 105 110
 Ser Glu Val Ser Lys Asp Ser Ser Thr Ser Leu Asp Ala Ile Ile Glu

115	120	125
Phe Leu Asn Tyr His Asn Glu Val Asp Ile Val Gly Asn Ile Gln Ala		
130	135	140
Thr Ser Pro Cys Leu His Pro Thr Asp Leu Gln Lys Val Ala Glu Met		
145	150	155
Ile Arg Glu Glu Gly Tyr Asp Ser Val Phe Ser Val Val Arg Arg His		
165	170	175
Gln Phe Arg Trp Ser Glu Ile Gln Lys Gly Val Arg Glu Val Thr Glu		
180	185	190
Pro Leu Asn Leu Asn Pro Ala Lys Arg Pro Arg Arg Gln Asp Trp Asp		
195	200	205
Gly Glu Leu Tyr Glu Asn Gly Ser Phe Tyr Phe Ala Lys Arg His Leu		
210	215	220
Ile Glu Met Gly Tyr Leu Gln Gly Gly Lys Met Ala Tyr Tyr Glu Met		
225	230	235
Arg Ala Glu His Ser Val Asp Ile Asp Val Asp Ile Asp Trp Pro Ile		
245	250	255
Ala Glu Gln Arg Val Leu Arg Tyr Gly Tyr Phe Gly Lys Glu Lys Leu		
260	265	270
Lys Glu Ile Lys Leu Leu Val Cys Asn Ile Asp Gly Cys Leu Thr Asn		
275	280	285
Gly His Ile Tyr Val Ser Gly Asp Gln Lys Glu Ile Ile Ser Tyr Asp		
290	295	300
Val Lys Asp Ala Ile Gly Ile Ser Leu Leu Lys Lys Ser Gly Ile Glu		
305	310	315
Val Arg Leu Ile Ser Glu Arg Ala Cys Ser Lys Gln Thr Leu Ser Ser		
325	330	335
Leu Lys Leu Asp Cys Lys Met Glu Val Ser Val Ser Asp Lys Leu Ala		
340	345	350
Val Val Asp Glu Trp Arg Lys Glu Met Gly Leu Cys Trp Lys Glu Val		
355	360	365
Ala Tyr Leu Gly Asn Glu Val Ser Asp Glu Glu Cys Leu Lys Arg Val		
370	375	380
Gly Leu Ser Gly Ala Pro Ala Asp Ala Cys Ser Thr Ala Gln Lys Ala		
385	390	395
Val Gly Tyr Ile Cys Lys Cys Asn Gly Gly Arg Gly Ala Ile Arg Glu		
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<210> 5859

<211> 2267

<212> DNA

<213> Homo sapiens

<400> 5859

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<210> 5860

<211> 96

<212> PRT

<213> Homo sapiens

<400> 5860

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			20					25					30		
Ser	Arg	Ala	Ser	Glu	Ala	Ser	Gly	Ser	Leu	Leu	Leu	Arg	Phe	Phe	Leu
		35					40					45			
Gln	Met	Gly	Leu	Gly	Arg	Cys	Arg	Phe	Cys	Phe	Ser	Pro	Trp	Leu	Pro
	50					55					60				
Val	Arg	Pro	Gln	Pro	Ser	Gly	Cys	Asp	Ile	Ile	Glu	Ser	Ala	Val	Ser
65					70					75				80	
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<210> 5861

<211> 1951

<212> DNA

<213> Homo sapiens

<400> 5861

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<210> 5862
 <211> 514
 <212> PRT
 <213> Homo sapiens

<400> 5862

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 1           5           10           15
Thr Gly Phe Leu Gly Lys Val Leu Met Glu Lys Leu Phe Arg Thr Ser
          20           25           30
Pro Asp Leu Lys Val Ile Tyr Ile Leu Val Arg Pro Lys Ala Gly Gln
          35           40           45
Thr Leu Gln Gln Arg Val Phe Gln Ile Leu Asp Ser Lys Leu Phe Glu
          50           55           60
Lys Val Lys Glu Val Cys Pro Asn Val His Glu Lys Ile Arg Ala Ile
65           70           75           80
Tyr Ala Asp Leu Asn Gln Asn Asp Phe Ala Ile Ser Lys Glu Asp Met
          85           90           95
Gln Glu Leu Leu Ser Cys Thr Asn Ile Ile Phe His Cys Ala Ala Thr
          100          105          110
Val Arg Phe Asp Asp Thr Leu Arg His Ala Val Gln Leu Asn Val Thr
          115          120          125
Ala Thr Arg Gln Leu Leu Leu Met Ala Ser Gln Met Pro Lys Leu Glu
          130          135          140
Ala Phe Ile His Ile Ser Thr Ala Tyr Ser Asn Cys Asn Leu Lys His
145          150          155          160
Ile Asp Glu Val Ile Tyr Pro Cys Pro Val Glu Pro Lys Lys Lys Ile
          165          170          175
Ile Asp Ser Leu Glu Trp Leu Asp Asp Ala Ile Ile Asp Glu Ile Thr
          180          185          190
Pro Lys Leu Ile Arg Asp Trp Pro Asn Ile Tyr Thr Tyr Thr Lys Ala
          195          200          205
Leu Gly Glu Met Val Val Gln Gln Glu Ser Arg Asn Leu Asn Ile Ala
          210          215          220
Ile Ile Arg Pro Ser Ile Val Gly Ala Thr Trp Gln Glu Pro Phe Pro
225          230          235          240
Gly Trp Val Asp Asn Ile Asn Gly Pro Asn Gly Ile Ile Ile Ala Thr
          245          250          255
Gly Lys Gly Phe Leu Arg Ala Ile Lys Ala Thr Pro Met Ala Val Ala
          260          265          270
Asp Val Ile Pro Val Asp Thr Val Val Asn Leu Met Leu Ala Val Gly
          275          280          285
Trp Tyr Thr Ala Val His Arg Pro Lys Ser Thr Leu Val Tyr His Ile
          290          295          300
Thr Ser Gly Asn Met Asn Pro Cys Asn Trp His Lys Met Gly Val Gln
305          310          315          320
Val Leu Ala Thr Phe Glu Lys Ile Pro Phe Glu Arg Pro Phe Arg Arg
          325          330          335
Pro Asn Ala Asn Phe Thr Ser Asn Ser Phe Thr Ser Gln Tyr Trp Asn
          340          345          350
Ala Val Ser His Arg Ala Pro Ala Ile Ile Tyr Asp Cys Tyr Leu Arg
          355          360          365
Leu Thr Gly Arg Lys Pro Arg Met Thr Lys Leu Met Asn Arg Leu Leu

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      370              375              380
Arg Thr Val Ser Met Leu Glu Tyr Phe Ile Asn Arg Ser Trp Glu Trp
385              390              395              400
Ser Thr Tyr Asn Thr Glu Met Leu Met Ser Glu Leu Ser Pro Glu Asp
      405              410              415
Gln Arg Val Phe Asn Phe Asp Val Arg Gln Leu Asn Trp Leu Glu Tyr
      420              425              430
Ile Glu Asn Tyr Val Leu Gly Val Lys Lys Tyr Leu Leu Lys Glu Asp
      435              440              445
Met Ala Gly Ile Pro Lys Ala Lys Gln Arg Leu Lys Arg Leu Arg Asn
      450              455              460
Ile His Tyr Leu Phe Asn Thr Ala Leu Phe Leu Ile Ala Trp Arg Leu
465              470              475              480
Leu Ile Ala Arg Ser Gln Met Ala Arg Asn Val Trp Phe Phe Ile Val
      485              490              495
Ser Phe Cys Tyr Lys Phe Leu Ser Tyr Phe Arg Ala Ser Ser Thr Leu
      500              505              510
Lys Val

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<210> 5863
 <211> 438
 <212> DNA
 <213> Homo sapiens

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<400> 5863
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120
agaagtgcc gtcttaacat tcaactgtttg tgactgattt atagaaaaag gggctggatt
180
ctggtagccg ggggagccca ggggtgaacac tgaggttcta ccctgttcta gtggttgctt
240
tgattgatac tcagccatga aaggacata gctcagatac tgacaaaaca gctttgtatt
300
tgagtgtgtt tgtccaactg gcaaggaaca gtctggggac aaacagtgcc ttatttggag
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tgaatcagat tttgtaca
438

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<210> 5864
 <211> 104
 <212> PRT
 <213> Homo sapiens

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<400> 5864
Met Gly Glu Lys Asn Lys Gln Leu Gln Ile Arg His Cys Leu Ser Pro
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Asp Cys Ser Leu Pro Val Gly Gln Thr His Ser Asn Thr Lys Leu Phe
20      25      30
Cys Gln Tyr Leu Ser Tyr Val Pro Phe Met Ala Glu Tyr Gln Ser Lys

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BNSDOCID: <WO 0058473A2 | >

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 1229

<210> 5866
 <211> 212
 <212> PRT
 <213> Homo sapiens

<400> 5866
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 Ala Val Leu Asn Phe Asp Leu Pro Pro Thr Pro Glu Ala Tyr Ile His
 20 25 30
 Arg Ala Gly Arg Thr Ala Arg Ala Asn Asn Pro Gly Ile Val Leu Thr
 35 40 45
 Phe Val Leu Pro Thr Glu Gln Phe His Leu Gly Lys Ile Glu Glu Leu
 50 55 60
 Leu Val Glu Arg Thr Gly Ala Pro Phe Cys Ser Pro Thr Ser Ser Gly
 65 70 75 80
 Trp Arg Arg Ser Arg Ala Ser Ala Ile Ala Ala Gly Val His Pro Gln
 85 90 95
 Asp Ala Met Arg Ser Val Thr Lys Gln Ala Ile Arg Glu Ala Arg Leu
 100 105 110
 Lys Glu Ile Lys Glu Glu Leu Leu His Ser Glu Lys Leu Lys Thr Tyr
 115 120 125
 Phe Glu Asp Asn Pro Arg Asp Leu Gln Leu Leu Arg His Asp Leu Pro
 130 135 140
 Leu His Pro Ala Val Val Lys Pro His Leu Gly His Val Pro Asp Tyr
 145 150 155 160
 Leu Val Pro Pro Ala Leu Arg Gly Leu Val Arg Pro His Lys Lys Arg
 165 170 175
 Lys Lys Leu Ser Ser Ser Cys Arg Lys Ala Lys Arg Ala Lys Ser Gln
 180 185 190
 Asn Pro Leu Arg Ser Phe Lys His Lys Gly Lys Lys Phe Arg Pro Thr
 195 200 205
 Ala Lys Pro Ser
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<210> 5867
 <211> 1882
 <212> DNA
 <213> Homo sapiens

<400> 5867
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 120
 gcgtcccatt gccttcactg cccgttccag gaagctctgg atcaacttca agacaagcga
 180
 ggccaacagc gcccggtggct tccagattcc ctatgttacc tatgatgagg actatgagca
 240

gctggtagaa gacattgtgc gagatggccg gctctatgcc tctgaaaacc accaggagat
300
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360
cttcaagtac acagagaaac acaaggagat gctgccaaaa tccttcatca agctgctccg
420
ctccaaagtt tccagcttcc tgaggcccta caaatagtaa ccctaggctc agagacccaa
480
ttttttaagc cccagactc cttagccctc agagccggca gcccctacc ctcagacaag
540
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600
ccctttctgt ctttctagtt tcctttcctt gtctctctct gcttgctctc ctactgttcc
660
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720
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780
tcagcttgga aggggtgctag aggcccatca aggaagtggg tctggtggga aacggggagg
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ggaaagaagg gcttctgcca ttatagggtt gtgccttgct agtcaggggc caaatgtcc
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1020
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1260
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1320
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1380
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1620
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1680
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1740
ccaagagaaa agagtgtatg tttggagtgg aagaaaatcg gttttgaatc tcatgaacct
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1860

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1882

<210> 5868

<211> 131

<212> PRT

<213> Homo sapiens

<400> 5868

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Gln	Thr	Tyr	Glu	Arg	Pro	Ile	Ala	Phe	Thr	Ala	Arg	Ser	Arg	Lys	Leu
			20					25					30		
Trp	Ile	Asn	Phe	Lys	Thr	Ser	Glu	Ala	Asn	Ser	Ala	Arg	Gly	Phe	Gln
		35					40					45			
Ile	Pro	Tyr	Val	Thr	Tyr	Asp	Glu	Asp	Tyr	Glu	Gln	Leu	Val	Glu	Asp
	50					55					60				
Ile	Val	Arg	Asp	Gly	Arg	Leu	Tyr	Ala	Ser	Glu	Asn	His	Gln	Glu	Ile
65					70					75				80	
Leu	Lys	Asp	Lys	Lys	Leu	Ile	Lys	Ala	Phe	Phe	Glu	Val	Leu	Ala	His
			85						90					95	
Pro	Gln	Asn	Tyr	Phe	Lys	Tyr	Thr	Glu	Lys	His	Lys	Glu	Met	Leu	Pro
		100						105					110		
Lys	Ser	Phe	Ile	Lys	Leu	Leu	Arg	Ser	Lys	Val	Ser	Ser	Phe	Leu	Arg
		115					120						125		
Pro	Tyr	Lys													
		130													

<210> 5869

<211> 910

<212> DNA

<213> Homo sapiens

<400> 5869

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120
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180
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240
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300
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360
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420
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480
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600

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 720
 tgactcagag cacaggatcc tttctatttt gggattgcaa tatgcctctt caataagttc
 780
 catgttgtcc aaatcctccc atttgcctct atccaagaat tgccatcgat acggcaaagt
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 900
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 910

<210> 5870
 <211> 129
 <212> PRT
 <213> Homo sapiens

<400> 5870
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 20 25 30
 Gly Ser Leu Leu Ile Met His His Glu Ala Ser Thr His Arg Val Ile
 35 40 45
 Pro Thr Leu Val Gln Thr Gly Leu His Gly Arg His Ile Leu Gly Arg
 50 55 60
 His Val Phe Gly Ser Ala Ala Asn Leu Phe Ser Cys Ala Ile Asp Gln
 65 70 75 80
 Val Phe Pro Asn Glu Gly Cys Leu Pro Tyr Ser Cys Gln Glu Pro Asn
 85 90 95
 Ser Ser Leu Gln Tyr Gln Ile Gln Ser Val Val Arg Met Lys Cys Gly
 100 105 110
 Gly Leu Val Thr Glu Glu Ala Val Glu Arg Arg Arg Ala Trp Val Ala
 115 120 125
 Pro

<210> 5871
 <211> 2217
 <212> DNA
 <213> Homo sapiens

<400> 5871
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 120
 tagtcattca ggagcaagtt gttcagtttc catatagatt ctgtgtgttt tagtcttgct
 180
 taaattattt ctactacttc tttgcacccc tttgctagtt ttctcagtg cgtaggggtt
 240
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 300

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360
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cctgtggttag ttgagaaatc caacagttat cccaccagt tatataccag cagctcacat
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1200
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1440
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1920

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 1980
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 2040
 ccactgagac tatcagtatc aaataatcag gaaccagatt ttattgatga tatagaagaa
 2100
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 2217

<210> 5872

<211> 578

<212> PRT

<213> Homo sapiens

<400> 5872

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Glu	Ala	Ser	Pro	Val	Val	Val	Glu	Lys	Ser	Asn	Ser	Tyr	Pro	His	Gln
			20					25					30		
Leu	Tyr	Thr	Ser	Ser	Ser	His	His	Ser	His	Ser	Tyr	Ile	Gly	Leu	Pro
		35					40					45			
Tyr	Ala	Asp	His	Asn	Tyr	Gly	Ala	Arg	Pro	Pro	Pro	Thr	Pro	Pro	Ala
	50					55					60				
Ser	Pro	Pro	Pro	Ser	Val	Leu	Ile	Ser	Lys	Asn	Glu	Val	Gly	Ile	Phe
65					70					75					80
Thr	Thr	Pro	Asn	Phe	Asp	Glu	Thr	Ser	Ser	Ala	Thr	Thr	Ile	Ser	Thr
			85						90					95	
Ser	Glu	Asp	Gly	Ser	Tyr	Gly	Thr	Asp	Val	Thr	Arg	Cys	Ile	Cys	Gly
			100					105					110		
Phe	Thr	His	Asp	Asp	Gly	Tyr	Met	Ile	Cys	Cys	Asp	Lys	Cys	Ser	Val
		115					120					125			
Trp	Gln	His	Ile	Asp	Cys	Met	Gly	Ile	Asp	Arg	Gln	His	Ile	Pro	Asp
	130					135					140				
Thr	Tyr	Leu	Cys	Glu	Arg	Cys	Gln	Pro	Arg	Asn	Leu	Asp	Lys	Glu	Arg
145					150					155					160
Ala	Val	Leu	Leu	Gln	Arg	Arg	Lys	Arg	Glu	Asn	Met	Ser	Asp	Gly	Asp
				165					170					175	
Thr	Ser	Ala	Thr	Glu	Ser	Gly	Asp	Glu	Val	Pro	Val	Glu	Leu	Tyr	Thr
			180					185					190		
Ala	Phe	Gln	His	Thr	Pro	Thr	Ser	Ile	Thr	Leu	Thr	Ala	Ser	Arg	Val
		195					200					205			
Ser	Lys	Val	Asn	Asp	Lys	Arg	Arg	Lys	Lys	Ser	Gly	Glu	Lys	Glu	Gln
	210					215					220				
His	Ile	Ser	Lys	Cys	Lys	Lys	Ala	Phe	Arg	Glu	Gly	Ser	Arg	Lys	Ser
225						230				235					240
Ser	Arg	Val	Lys	Gly	Ser	Ala	Pro	Glu	Ile	Asp	Pro	Ser	Ser	Asp	Gly
				245					250					255	
Ser	Asn	Phe	Gly	Trp	Glu	Thr	Lys	Ile	Lys	Ala	Trp	Met	Asp	Arg	Tyr
		260						265					270		
Glu	Glu	Ala	Asn	Asn	Asn	Gln	Tyr	Ser	Glu	Gly	Val	Gln	Arg	Glu	Ala
		275					280					285			
Gln	Arg	Ile	Ala	Leu	Arg	Leu	Gly	Asn	Gly	Asn	Asp	Lys	Lys	Glu	Met

290 295 300
 Asn Lys Ser Asp Leu Asn Thr Asn Asn Leu Leu Phe Lys Pro Pro Val
 305 310 315 320
 Glu Ser His Ile Gln Lys Asn Lys Lys Ile Leu Lys Ser Ala Lys Asp
 325 330 335
 Leu Pro Pro Asp Ala Leu Ile Ile Glu Tyr Arg Gly Lys Phe Met Leu
 340 345 350
 Arg Glu Gln Phe Glu Ala Asn Gly Tyr Phe Phe Lys Arg Pro Tyr Pro
 355 360 365
 Phe Val Leu Phe Tyr Ser Lys Phe His Gly Leu Glu Met Cys Val Asp
 370 375 380
 Ala Arg Thr Phe Gly Asn Glu Ala Arg Phe Ile Arg Arg Ser Cys Thr
 385 390 395 400
 Pro Asn Ala Glu Val Arg His Glu Ile Gln Asp Gly Thr Ile His Leu
 405 410 415
 Tyr Ile Tyr Ser Ile His Ser Ile Pro Lys Gly Thr Glu Ile Thr Ile
 420 425 430
 Ala Phe Asp Phe Asp Tyr Gly Asn Cys Lys Tyr Lys Val Asp Cys Ala
 435 440 445
 Cys Leu Lys Glu Asn Pro Glu Cys Pro Val Leu Lys Arg Ser Ser Glu
 450 455 460
 Ser Met Glu Asn Ile Asn Ser Gly Tyr Glu Thr Arg Arg Lys Lys Gly
 465 470 475 480
 Lys Lys Asp Lys Asp Ile Ser Lys Glu Lys Asp Thr Gln Asn Gln Asn
 485 490 495
 Ile Thr Leu Asp Cys Glu Gly Thr Thr Asn Lys Met Lys Ser Pro Glu
 500 505 510
 Thr Lys Gln Arg Lys Leu Ser Pro Leu Arg Leu Ser Val Ser Asn Asn
 515 520 525
 Gln Glu Pro Asp Phe Ile Asp Asp Ile Glu Glu Lys Thr Pro Ile Ser
 530 535 540
 Asn Glu Val Glu Met Glu Ser Glu Glu Gln Ile Ala Glu Arg Lys Arg
 545 550 555 560
 Lys Met Thr Arg Glu Glu Arg Lys Met Glu Ala Ile Leu Gln Ala Phe
 565 570 575
 Ala Gly

<210> 5873

<211> 3463

<212> DNA

<213> Homo sapiens

<400> 5873

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 180
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 240
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 300

gggtccagca aatatgacat cttggcctca gaggatgtag aaggtcagga ggcagccaca
360
ctccccagcg aggggggtgt tcggatcaca ccctttaacc tgcaggagga gatggaggaa
420
ggccactttg atgccgatgg caactacttc ctgaaccggg atgctcagat ccgagacagc
480
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660
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720
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780
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900
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 Phe Ser Gly Gly Asn Asp Glu Gln Val Ile Leu His Asp Val Glu Ser
 130 135 140
 Ser Glu Thr Leu Asp Val Phe Ala His Glu Asp Ala Val Tyr Gly Leu
 145 150 155 160
 Ser Val Ser Pro Val Asn Asp Asn Ile Phe Ala Ser Ser Ser Asp Asp
 165 170 175
 Gly Arg Val Leu Ile Trp Asp Ile Arg Glu Ser Pro His Gly Glu Pro
 180 185 190
 Phe Cys Trp Ala Asn Tyr Pro Ser Ala Phe His Ser Val Met Phe Asn
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 Gly Leu Trp
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<210> 5879
 <211> 1555
 <212> DNA
 <213> Homo sapiens

<400> 5879
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<210> 5880
 <211> 185
 <212> PRT
 <213> Homo sapiens

<400> 5880
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 35 40 45
 Phe Tyr Asp Val Glu Ala Leu Arg Asp Tyr Leu Leu Gln Arg Glu Met
 50 55 60
 Tyr Lys Val His Glu Lys Asn Arg Ser Tyr Thr Trp Leu Glu Lys Gln
 65 70 75 80
 His Gly Pro Tyr Gly Ala Gly Ala Phe Phe Ile Leu Lys Gln Gly Gly
 85 90 95
 Ala Val Lys Phe Arg Asp Lys Glu Trp Ile Arg Pro Asp Lys Tyr Gly
 100 105 110
 His Phe Ser Gln Glu Phe Trp Asn Phe Cys Glu Val Pro Val Glu Ala
 115 120 125
 Val Asp Ala Gly Asp Cys Asp Ile Asn Tyr Glu Gly Leu Asp Asn Leu
 130 135 140
 Arg Thr Ser Ala Gly Trp Thr Ser Arg Thr Ser Leu Pro Cys Pro Thr
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 165 170 175
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<210> 5881
 <211> 327
 <212> DNA
 <213> Homo sapiens

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 180
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<210> 5882
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 <212> PRT

<213> Homo sapiens

<400> 5882

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Ala Lys Glu Asn Met Val Thr Phe Ser His Thr Leu Pro Arg Ala Ser
          35           40           45
Ala Pro Ser Leu Asp Asp Pro Ala Arg Arg His Met Thr Ile His Val
          50           55           60
Pro Leu Asp Ala Ser Arg Ser Lys Gln Leu Ile Ser Glu Trp Lys Gln
65           70           75           80
Lys Ser Leu Glu Gly Arg Gly Leu Gly Leu Pro Asp Asp Ala Ser Pro
          85           90           95
Gly His Leu Arg Ala Pro Ala Glu Pro Met Pro Glu Xaa
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<210> 5883

<211> 579

<212> DNA

<213> Homo sapiens

<400> 5883

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<210> 5884

<211> 71

<212> PRT

<213> Homo sapiens

<400> 5884

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<212> DNA
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240
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1200

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<210> 5886

<211> 265

<212> PRT

<213> Homo sapiens

<400> 5886

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			20					25					30		
Gly	Ala	Gly	Pro	Leu	Tyr	Ser	His	His	Leu	Pro	Thr	Ser	Pro	Leu	Gln
		35					40					45			
Lys	Ala	Leu	Leu	Ala	Ala	Gly	Ser	Ala	Ala	Met	Ala	Leu	Tyr	Asn	Pro
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Tyr	Arg	His	Asp	Met	Val	Ala	Val	Leu	Gly	Glu	Thr	Thr	Gly	His	Arg
65					70					75				80	
Thr	Leu	Lys	Val	Leu	Arg	Asp	Gln	Met	Arg	Arg	Asp	Pro	Glu	Gly	Ala
			85						90					95	
Gln	Ile	Leu	Gln	Glu	Arg	Pro	Arg	Ile	Ser	Thr	Ser	Thr	Leu	Asp	Leu
			100					105					110		
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		115					120					125			
Arg	Phe	Leu	Asp	Val	Asn	Arg	Val	Ser	Pro	Asp	Thr	Arg	Ala	Pro	Thr
	130					135					140				
Arg	Phe	Val	Asp	Asp	Glu	Glu	Leu	Ala	Tyr	Val	Ile	Gln	Arg	Tyr	Arg
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Glu	Val	His	Asp	Met	Leu	His	Thr	Leu	Leu	Gly	Met	Pro	Thr	Asn	Ile
			165					170					175		
Leu	Gly	Glu	Ile	Val	Val	Lys	Trp	Phe	Glu	Ala	Val	Gln	Thr	Gly	Leu

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Pro Met Cys Ile Leu Gly Ala Phe Phe Gly Pro Ile Arg Leu Gly Ala					
195		200		205	
Gln Ser Leu Gln Val Leu Val Ser Glu Leu Ile Pro Trp Ala Val Gln					
210	215		220		
Asn Gly Arg Arg Ala Pro Cys Val Leu Asn Leu Tyr Tyr Glu Arg Arg					
225	230		235		240
Trp Glu Gln Ser Leu Arg Ala Leu Arg Glu Glu Leu Gly Ile Thr Ala					
	245		250		255
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<210> 5887

<211> 3779

<212> DNA

<213> Homo sapiens

<400> 5887

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<211> 166

<212> PRT

<213> Homo sapiens

<400> 5888

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Pro	Glu	Tyr	Met	Trp	Phe	Leu	Leu	Tyr	Cys	Glu	Gly	Thr	Arg	Phe	Thr
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Pro	Val	Leu	Lys	Tyr	His	Leu	Leu	Pro	Arg	Thr	Lys	Gly	Phe	Thr	Thr
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Ala	Val	Lys	Cys	Leu	Arg	Gly	Thr	Val	Ala	Ala	Val	Tyr	Asp	Val	Thr

				85					90					95					
Leu	Asn	Phe	Arg	Gly	Asn	Lys	Asn	Pro	Ser	Leu	Leu	Gly	Ile	Leu	Tyr				
				100				105					110						
Gly	Lys	Lys	Tyr	Glu	Ala	Asp	Met	Cys	Val	Arg	Arg	Phe	Pro	Leu	Glu				
		115					120					125							
Asp	Ile	Pro	Leu	Asp	Glu	Lys	Glu	Ala	Ala	Gln	Trp	Leu	His	Lys	Leu				
	130					135					140								
Tyr	Gln	Glu	Lys	Asp	Ala	Leu	Gln	Glu	Val	Lys	Thr	Leu	Asp	Gly	Met				
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<210> 5889

<211> 2198

<212> DNA

<213> Homo sapiens

<400> 5889

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<211> 118

<212> PRT

<213> Homo sapiens

<400> 5890

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<400> 5892
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 Gly Lys Thr Tyr Pro Ala His Ala Phe Leu Ala Ala Phe Leu Gly Gly
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 Ile Leu Val Phe Gly Glu Asn Asn Asn Ile Asn Ser Gln Ile Asn Met
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 Lys Gly Tyr Ile Pro Glu Pro Arg Trp Asp Pro Phe Pro Leu Leu Thr
 145 150 155 160
 Ala Val Val Trp Gly Leu Val Leu Trp Leu Phe Glu Tyr His Arg Ser
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 Thr Leu Gln Pro Ser Leu Gln Ser Ser Met Thr Tyr Leu Tyr Glu Asp
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 <212> DNA
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<210> 5894

<211> 260

<212> PRT

<213> Homo sapiens

<400> 5894

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 Tyr Cys Ser Thr Arg Ile Tyr Ala Ser Met Lys Cys Pro Asp Gln Lys
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 Cys Leu Tyr Thr Cys Gln Ile Lys Asp Gly Gly Val Gln Pro Gln Phe
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 Glu Ile Val Pro Glu Asp Asp Pro Gln Asn Ala Ile Val Ser Ser Ser
 100 105 110
 Ala Asp Ala Cys His Ala Glu Leu Leu Arg Thr Ile Ser Thr Thr Met
 115 120 125
 Gly Lys Leu Met Pro Asn Leu Leu Pro Ala Gly Ala Asp Phe Phe Gly
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 Arg Lys Cys Ile Asn Tyr Gln Trp Val Lys Phe Asp Val Cys Lys Pro
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 Ser Phe Glu Ala Phe Gln Arg Gln Ile Phe Asp Glu Asp Gln Asn Asp
 195 200 205
 Pro Leu Leu Pro Gly Ser Leu Asp Leu Pro Glu Leu Gln Pro Ala Ala
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<211> 261

<212> PRT

<213> Homo sapiens

<400> 5896

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<210> 5897

<211> 1930

<212> DNA

<213> Homo sapiens

<400> 5897

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<210> 5898

<211> 242

<212> PRT

<213> Homo sapiens

<400> 5898

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		20					25						30		
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Leu	Glu	Val	Gly	Cys	Gly	Val	Gly	Asn	Thr	Val	Phe	Pro	Ile	Leu	Gln
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Phe Tyr Val Arg Gly Asp Gly Thr Arg Val Tyr Phe Phe Thr Gln Glu		175
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Glu Leu Asp Thr Leu Phe Thr Thr Ala Gly Leu Glu Lys Val Gln Asn		190
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<212> DNA

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<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<210> 5912
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 Ala Ser Ser Ser Ser Leu Leu Asn Arg Leu Gln Leu Asp Asp Asp Ile

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Ser Thr Arg Val Glu Phe Asp Leu Pro Glu Tyr Ser Val Arg Arg Arg
      100              105              110
Tyr Gln Asp Phe Asp Trp Leu Arg Ser Lys Leu Glu Glu Ser Gln Pro
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Thr His Leu Ile Pro Pro Leu Pro Glu Lys Phe Val Val Lys Gly Val
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Val Asp Arg Phe Ser Glu Glu Phe Val Glu Thr Arg Arg Lys Ala Leu
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Asp Lys Phe Leu Lys Arg Ile Thr Asp His Pro Val Leu Ser Phe Asn
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Glu His Phe Asn Ile Phe Leu Thr Ala Lys Asp Leu Asn Ala Tyr Lys
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<211> 158

<212> PRT

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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 Trp Ile Leu Gln Asp Lys Pro Val Phe Met Glu Glu Pro Asp Arg Lys
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 Trp Gly Arg Thr Tyr Ser Phe Thr Ser Ala Met Ser Arg Gly Cys Val
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<211> 981

<212> PRT

<213> Homo sapiens

<400> 5918

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<211> 1252

<212> PRT

<213> Homo sapiens

<400> 5922

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<212> DNA

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<212> PRT

<213> Homo sapiens

<400> 5924

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<210> 5926

<211> 526

<212> PRT

<213> Homo sapiens

<400> 5926

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Gln	Pro	Phe	Leu	Pro	Val	Phe	Thr	Met	Pro	Leu	Leu	Ser	Pro	Ser	Pro
		35					40					45			
Ala	Pro	Pro	Pro	Ile	Ser	Pro	Val	Leu	Pro	Leu	Val	Pro	Pro	Pro	Ala
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Thr	Ala	Leu	Asn	Pro	Pro	Ala	Pro	Pro	Thr	Phe	His	Gln	Pro	Gln	Lys
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Phe	Ala	Gly	Val	Asn	Lys	Ala	Pro	Ser	Val	Ile	Thr	His	Thr	Ala	Ser
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Ala	Thr	Leu	Thr	His	Asp	Ala	Pro	Ala	Thr	Thr	Phe	Ser	Gln	Ser	Gln
			100					105					110		
Gly	Leu	Val	Ile	Thr	Thr	His	His	Pro	Ala	Pro	Ser	Ala	Ala	Pro	Cys
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Phe	Val	His	Pro	Lys	Pro	Val	Ser	Leu	Thr	Gly	Gly	Arg	Pro	Lys	Gln
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 Ile Ile Ser Cys Gln Gln Leu Leu Pro Ala Thr Gly Val Pro Val Thr
 405 410 415
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 Thr Arg Thr Leu Gln Asn Trp Lys Phe Trp Ile Phe Ser Ile Ile Ile
 435 440 445
 Lys Pro Leu Phe Glu Ser Phe Lys Gly Met Val Ser Thr Ser Ser Leu
 450 455 460
 Glu Glu Leu His Arg Thr Ala Leu Ser Trp Leu Asp Gln His Cys Ser
 465 470 475 480
 Leu Pro Ile Leu Arg Pro Met Val Leu Ser Thr Leu Arg Gln Leu Ser
 485 490 495
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<210> 5927
 <211> 1786
 <212> DNA
 <213> Homo sapiens

<400> 5927
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<210> 5928

<211> 202

<212> PRT

<213> Homo sapiens

<400> 5928

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 Phe Leu Met Glu Asn Arg Val Gln Ser Phe Tyr Gln Gln Glu Leu Glu
 50 55 60
 Met Val Glu Ser Leu Leu Ser Leu Ala Asn Gln Pro Val Ile His Ser
 65 70 75 80
 Ala Cys Ser Asp Gln Val Asn Phe Lys Lys Asp Thr Thr Ser Lys Ala
 85 90 95
 Ile His Ser Ile Phe Lys Asn Ala Ile Gln Leu Leu Gln Glu Lys Gly
 100 105 110
 Leu Val Phe Gln Lys Asp Asp Gly Phe Asp Asn Leu Tyr Tyr Val Thr
 115 120 125
 Arg Glu Asp Lys Asp Leu His Arg Lys Ile His Arg Ile Ile Gln Gln
 130 135 140
 Asp Cys Gln Lys Pro Asn His Met Glu Lys Gly Cys His Phe Leu His
 145 150 155 160
 Ile Leu Ala Cys Ala Arg Leu Ser Ile Arg Pro Gly Leu Ser Glu Ala
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 Val Leu Gln Gln Val Leu Glu Leu Leu Glu Asp Gln Ser Asp Ile Val
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 Ser Thr Met Glu His Tyr Tyr Thr Ala Phe
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<210> 5929

<211> 606

<212> DNA

<213> Homo sapiens

<400> 5929

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<210> 5930
 <211> 144
 <212> PRT
 <213> Homo sapiens

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 Lys Glu Pro Leu Gly Arg Ala Glu Arg Pro Gly Arg Pro Cys Thr Arg
 35 40 45
 Leu Gln Pro Ala Gly Ser Val Ser Ser Thr Pro Leu Ser Thr Pro Cys
 50 55 60
 Ser Ser Val Pro Ser Ser Pro Ser Phe Ser Pro Thr Glu Gln Lys Thr
 65 70 75 80
 His Leu Glu Asp Leu Tyr Trp Met Ala Ser Asn Tyr Gln Gln Met Asn
 85 90 95
 Pro Glu Ala Leu Asn Leu Thr Pro Glu Asp Ala Val Glu Ala Leu Ile
 100 105 110
 Gly Ser His Pro Val Pro Gln Pro Leu Gln Ser Phe Asp Ser Phe Arg
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<210> 5931
 <211> 478
 <212> DNA
 <213> Homo sapiens

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<210> 5932
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 5932

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 Glu Arg Met Arg Asn Ser Arg Asp Arg Leu Leu Asn Arg Tyr Arg Gln
 35 40 45
 Ala Gly Ser Ser Gly Pro Gly Asn Ser Gln Asn Ser Phe Leu Val Gln
 50 55 60
 Glu Val Met Glu Glu Glu Trp Asn Ala Leu Gln Ser Val Glu Asn Cys
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<210> 5933

<211> 1953

<212> DNA

<213> Homo sapiens

<400> 5933

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<210> 5934

<211> 314

<212> PRT

<213> Homo sapiens

<400> 5934

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Ser	Lys	Val	Arg	Glu	Gln	Leu	Glu	Gln	Glu	Leu	Glu	Glu	Leu	Thr	Ala
		35					40					45			
Ser	Leu	Phe	Glu	Glu	Ala	His	Lys	Met	Val	Arg	Glu	Ala	Asn	Met	Lys
		50				55					60				
Gln	Ala	Ala	Ser	Glu	Lys	Gln	Leu	Lys	Glu	Ala	Arg	Gly	Lys	Ile	Asp
65					70					75				80	
Met	Leu	Gln	Ala	Glu	Val	Thr	Ala	Leu	Lys	Thr	Leu	Val	Ile	Thr	Ser
					85				90					95	
Thr	Pro	Ala	Ser	Pro	Asn	Arg	Glu	Leu	His	Pro	Gln	Leu	Leu	Ser	Pro

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 Ser Thr Leu Cys Pro Ala Val Cys Pro Ala Ala Gly His Thr Leu Thr
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 Pro Asp Arg Glu Gly Lys Glu Val Asp Thr Ile Leu Phe Ala Glu Phe
 145 150 155 160
 Gln Ala Trp Arg Glu Ser Pro Thr Leu Asp Lys Thr Cys Pro Phe Leu
 165 170 175
 Glu Arg Val Tyr Arg Glu Asp Val Gly Pro Cys Leu Asp Phe Thr Met
 180 185 190
 Gln Glu Leu Ser Val Leu Val Arg Ala Ala Val Glu Asp Asn Thr Leu
 195 200 205
 Thr Ile Glu Pro Val Ala Ser Gln Thr Leu Pro Thr Val Lys Val Ala
 210 215 220
 Glu Val Asp Cys Ser Ser Thr Asn Thr Cys Ala Leu Ser Gly Leu Thr
 225 230 235 240
 Arg Thr Cys Arg His Arg Ile Arg Leu Gly Asp Ser Lys Ser His Tyr
 245 250 255
 Tyr Ile Ser Pro Ser Ser Arg Ala Arg Ile Thr Ala Val Cys Asn Phe
 260 265 270
 Phe Thr Tyr Ile Arg Tyr Ile Gln Gln Gly Leu Val Arg Gln Asp Ala
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<210> 5935

<211> 2727

<212> DNA

<213> Homo sapiens

<400> 5935

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 <212> PRT
 <213> Homo sapiens

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 Asp Gln Glu Pro Pro Pro Tyr Gln Glu Gln Val Pro Val Pro Val
 35 40 45
 Tyr His Pro Thr Pro Ser Gln Thr Arg Leu Ala Thr Gln Leu Thr Glu
 50 55 60
 Glu Glu Gln Ile Arg Ile Ala Gln Arg Ile Gly Leu Ile Gln His Leu
 65 70 75 80
 Pro Lys Gly Val Tyr Asp Pro Gly Arg Asp Gly Ser Glu Lys Lys Ile
 85 90 95
 Arg Glu Cys Val Ile Cys Met Met Asp Phe Val Tyr Gly Asp Pro Ile
 100 105 110
 Arg Phe Leu Pro Cys Met His Ile Tyr His Leu Asp Cys Ile Asp Asp
 115 120 125
 Trp Leu Met Arg Ser Phe Thr Cys Pro Ser Cys Met Glu Pro Val Asp
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 Ala Ala Leu Leu Ser Ser Tyr Glu Thr Asn
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<210> 5937
 <211> 1536
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 <213> Homo sapiens

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<210> 5938

<211> 406

<212> PRT

<213> Homo sapiens

<400> 5938

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Gly Lys Ser Leu Ile Val Pro Phe Lys Gly Ser Arg Val Ile Asp Ser
 35           40           45
Thr Val Leu Pro Gly Ile Leu Ile Glu Met Ser Glu Val Gln Leu Met
 50           55           60
Arg Leu Leu Pro Ile Lys Lys Ser Thr Ala Leu Lys Val Ala Leu Phe
 65           70           75           80
Cys Thr Thr Leu Ser Gly Asp Thr Ser Asp Thr Gly Glu Gly Thr Val
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Val Val Ser Tyr Gly Val Ser Leu Glu Asn Ala Val Leu Asp Gln Leu
 100          105          110
Leu Asn Leu Gly Arg Gln Leu Ile Ser Asp His Val Asp Leu Val Leu
 115          120          125
Cys Gln Lys Val Ile His Pro Ser Leu Lys Gln Phe Leu Asn Met His
 130          135          140
Arg Ile Ile Ala Ile Asp Arg Ile Gly Val Thr Leu Met Glu Pro Leu
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Thr Lys Met Thr Gly Thr Gln Pro Ile Gly Ser Leu Gly Ser Ile Cys
 165          170          175
Pro Asn Ser Tyr Gly Ser Val Lys Asp Val Cys Thr Ala Lys Phe Gly
 180          185          190
Ser Lys His Phe Phe His Leu Ile Pro Asn Glu Ala Thr Ile Cys Ser
 195          200          205
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 210          215          220
Thr Cys Gln Thr Ala Leu His Val Leu Gln Leu Thr Leu Lys Glu Pro
 225          230          235          240
Trp Ala Leu Leu Gly Gly Gly Cys Thr Glu Thr His Leu Ala Ala Tyr
 245          250          255
Ile Arg His Lys Thr His Asn Asp Pro Glu Ser Ile Leu Lys Asp Asp
 260          265          270
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 275          280          285
Ala Leu Glu Ser Val Val Gly Ser Leu Glu His Asp Gly Gly Glu Ile
 290          295          300
Leu Thr Asp Met Lys Tyr Gly His Leu Trp Ser Val Gln Ala Asp Ser
 305          310          315          320
Pro Cys Val Ala Asn Trp Pro Asp Leu Leu Ser Gln Cys Gly Cys Gly
 325          330          335
Leu Tyr Asn Ser Gln Glu Glu Leu Asn Trp Ser Phe Leu Arg Ser Thr
 340          345          350
Arg Arg Pro Phe Val Pro Gln Ser Cys Leu Pro His Glu Ala Val Gly
 355          360          365
Ser Ala Ser Asn Leu Thr Leu Asp Cys Leu Thr Ala Lys Leu Ser Gly
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405

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 <211> 795
 <212> DNA
 <213> Homo sapiens

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<210> 5940
 <211> 96
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 <213> Homo sapiens

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 35 40 45
 Ile Ser Gln Gln Leu Gly Leu Glu Leu Asn Thr Val Ser Asn Phe Phe
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 Met Asn Ala Arg Arg Arg Cys Met Asn Arg Trp Ala Glu Glu Pro Ser
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85

90

95

<210> 5941
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<212> DNA
<213> Homo sapiens

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<210> 5942

<211> 89

<212> PRT

<213> Homo sapiens

<400> 5942

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			20					25				30			
Pro	Gly	Ser	Leu	Gln	Pro	Pro	Pro	Pro	Gly	Phe	Lys	Gln	Phe	Ser	Cys

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Gly Trp Ser Gln Thr Pro Asp Leu Lys
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<210> 5943
 <211> 781
 <212> DNA
 <213> Homo sapiens

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<210> 5944
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 <212> PRT
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<400> 5944
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<210> 5945
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<212> DNA
<213> Homo sapiens
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<210> 5946
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 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Arg Ile Arg Arg Gly His Ala Arg Leu Ala Leu Ser Gln Asn Gln Gln
 50 55 60
 Ser Ser Gly Ala Ala Gly Pro Thr Gly Lys Asn Gly Glu Lys Ile Gln
 65 70 75 80
 Val Leu Thr Asp Lys Ile Asp Val Leu Leu Gln Gln Ile Glu Glu Leu
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 Glu Gln Leu Lys Glu Glu Arg Glu Leu
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<210> 5947
 <211> 2283
 <212> DNA
 <213> Homo sapiens

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<211> 397

<212> PRT

<213> Homo sapiens

<400> 5950

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Glu	Glu	Ile	Ile	Lys	Arg	Val	Phe	Asp	Pro	Ala	Leu	Asn	Leu	Phe	Lys
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Val	Asp	Glu	Leu	Pro	Ser	Leu	Asp	Ser	Glu	Phe	Tyr	Lys	Asn	Leu	Thr
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	245	250
Asn Ala Glu Ile Asp Leu Glu Asp Leu Lys Lys His Thr Val Tyr Tyr		255
	260	265
Gly Gly Phe His Gly Ser His Arg Val Ile Ile Trp Leu Trp Asp Ile		270
	275	280
Leu Ala Ser Asp Phe Thr Pro Asp Glu Arg Ala Met Phe Leu Lys Phe		285
	290	295
Val Thr Ser Cys Ser Arg Pro Pro Leu Leu Gly Phe Ala Tyr Leu Lys		300
305	310	315
Pro Pro Phe Ser Ile Arg Cys Val Glu Val Ser Asp Asp Gln Asp Thr		320
	325	330
Gly Asp Thr Leu Gly Ser Val Leu Arg Gly Phe Phe Thr Ile Arg Lys		335
	340	345
Arg Glu Pro Gly Gly Arg Leu Pro Thr Ser Ser Thr Cys Phe Asn Leu		350
	355	360
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<210> 5951

<211> 1724

<212> DNA

<213> Homo sapiens

<400> 5951

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<211> 378

<212> PRT

<213> Homo sapiens

<400> 5952

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Ala	Pro	Arg	Phe	Pro	Pro	Gly	Gly	Phe	Ala	Ala	Gly	Arg	Thr	Met	Leu
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Glu Arg Tyr Tyr Lys Glu Ser Glu	Asp Pro Lys His Phe Lys Ser Glu	
195	200	205
Lys Thr Gly Arg Gly Gln Leu Arg	Glu Gly Trp Arg Asp Ser His Gln	
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Pro Ile Met Cys Ser Tyr Lys Leu	Val Thr Val Lys Phe Glu Val Trp	
225	230	235
Gly Leu Gln Thr Arg Val Glu Gln	Phe Val His Lys Val Val Arg Asp	
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Ile Leu Leu Ile Gly His Arg Gln	Ala Phe Ala Trp Val Asp Glu Trp	
260	265	270
Tyr Asp Met Thr Met Asp Glu Val	Arg Glu Phe Glu Arg Ala Thr Gln	
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<210> 5953

<211> 777

<212> DNA

<213> Homo sapiens

<400> 5953

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<210> 5954
 <211> 152
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 <211> 1459
 <212> DNA
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ggtggggcca gcctaggggc caggcacatc gggcacctcc tccccatgga ctatagcgcc
1260
aatgccattg cttctattc ctacaccttt tcctaggggg ctggtcccgg ctccaccccc
1320
tccaagctca gtggacactg ggtctgaaag gaaggagtct tttgcttctt ttctcctttt
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1440
aaaaaaaaaa aagtcgacg
1459

<210> 5956

<211> 431

<212> PRT

<213> Homo sapiens

<400> 5956

Xaa	Asn	Trp	Thr	Ala	Leu	Ser	Asn	Thr	Cys	Ala	Met	Tyr	Ile	Leu	Ser
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Ala	Pro	Ala	Ser	Arg	Tyr	Pro	Gly	Gly	Leu	Met	Ser	Glu	Phe	Ser	Pro

			20					25				30			
Arg	Phe	Lys	Ala	Leu	Pro	Pro	Gly	Ala	Gln	Pro	Val	Ile	Cys	Ile	His
		35					40					45			
Ser	Ala	Cys	Thr	Trp	Ala	Asp	Asp	Leu	Ser	Val	Cys	Tyr	Pro	Ser	Pro
	50					55					60				
His	Ile	Thr	Ile	His	Met	His	Gly	Gly	Thr	Ser	Ser	Asp	Gly	Ser	Ser
65					70					75					80
Ser	Met	Ala	Ala	Ile	Tyr	Gly	Gly	Val	Glu	Gly	Gly	Gly	Thr	Arg	Ser
				85				90						95	
Glu	Val	Leu	Leu	Val	Ser	Glu	Asp	Gly	Lys	Ile	Leu	Ala	Glu	Ala	Asp
			100					105					110		
Gly	Leu	Ser	Thr	Asn	His	Trp	Leu	Ile	Gly	Thr	Asp	Lys	Cys	Val	Glu
		115					120					125			
Arg	Ile	Asn	Glu	Met	Val	Asn	Arg	Ala	Lys	Arg	Lys	Ala	Gly	Val	Asp
	130					135					140				
Pro	Leu	Val	Pro	Leu	Arg	Ser	Leu	Gly	Leu	Ser	Leu	Ser	Gly	Gly	Asp
145					150					155					160
Gln	Glu	Asp	Ala	Gly	Arg	Ile	Leu	Ile	Glu	Glu	Leu	Arg	Asp	Arg	Phe
			165					170						175	
Pro	Tyr	Leu	Ser	Glu	Ser	Tyr	Leu	Ile	Thr	Thr	Asp	Ala	Ala	Gly	Ser
			180				185						190		
Ile	Ala	Thr	Ala	Thr	Pro	Asp	Gly	Gly	Val	Val	Leu	Ile	Ser	Gly	Thr
	195						200					205			
Gly	Ser	Asn	Cys	Arg	Leu	Ile	Asn	Pro	Asp	Gly	Ser	Glu	Ser	Gly	Cys
	210					215					220				
Gly	Gly	Trp	Gly	His	Met	Met	Gly	Asp	Glu	Gly	Ser	Ala	Leu	Ser	Ala
225				230					235						240
Pro	Ser	Ala	Tyr	Trp	Ile	Ala	His	Gln	Ala	Val	Lys	Ile	Val	Phe	Asp
			245					250						255	
Ser	Ile	Asp	Asn	Leu	Glu	Ala	Ala	Pro	His	Asp	Ile	Gly	Tyr	Val	Lys
			260				265						270		
Gln	Ala	Met	Phe	His	Tyr	Phe	Gln	Val	Pro	Asp	Arg	Leu	Gly	Ile	Leu
	275						280					285			
Thr	His	Leu	Tyr	Arg	Asp	Phe	Asp	Lys	Cys	Arg	Phe	Ala	Gly	Phe	Cys
	290				295						300				
Arg	Lys	Ile	Ala	Glu	Gly	Ala	Gln	Gln	Gly	Asp	Pro	Leu	Ser	Arg	Tyr
305				310					315						320
Ile	Phe	Arg	Lys	Ala	Gly	Glu	Met	Leu	Gly	Arg	His	Ile	Val	Ala	Val
			325					330						335	
Leu	Pro	Glu	Ile	Asp	Pro	Val	Leu	Phe	Gln	Gly	Lys	Ile	Gly	Leu	Pro
			340				345						350		
Ile	Leu	Cys	Val	Gly	Ser	Val	Trp	Lys	Ser	Trp	Glu	Leu	Leu	Lys	Glu
	355					360						365			
Gly	Phe	Leu	Leu	Ala	Leu	Thr	Gln	Gly	Arg	Glu	Ile	Gln	Ala	Gln	Asn
	370					375									

5137

<212> DNA

<213> Homo sapiens

<400> 5957

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 120
 ctaaacagggt accgccaggc tggaagcagt gggccaggga attctcagaa cagcttttcta
 180
 gttcaagagg tgatggaaga agagtggaat gctttgcagt cagtggagaa ttgtccagaa
 240
 gacttggctc agctggagga gctgatagac atggctgtgc tggaggaaat tcaacaggag
 300
 ctgatcaacc aaggcctgtg atacttgggc tgtgatcctc tagagccagc ttggactcac
 360
 atcattctat ggggttgaag acaactcatt ccctctgagg agccttgtac atacaagcct
 420
 tttattttata acttattttg tattgaaact tttaaacaat actgaagaaa aaaaaacttt
 480
 tccgacatct gttcttggtc ttttgtgaca cagggttgaag ggggaggaat agaaaaagac
 540
 aaactgcctt ggaggagata aaccaatttt atgtctatca tgttatataa aaatctagaa
 600
 ataatagatt tgtacagaaa aaaatgataa taaatgagag cacaaaacat ataatttaaa
 660
 tctgggtattt tttcccccat gatattagga tgataatcat ttcaaagcac atgtctagct
 720
 tcagagtagg atttgttcac tggccaaagc ctgccatgaa actatggctt tcagcatctg
 780
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 855

<210> 5958

<211> 106

<212> PRT

<213> Homo sapiens

<400> 5958

Met Ala Glu Ser Leu Arg Ser Pro Arg Arg Ser Leu Tyr Lys Leu Val
 1 5 10 15
 Gly Ser Pro Pro Trp Lys Glu Ala Phe Arg Gln Arg Cys Leu Glu Arg
 20 25 30
 Met Arg Asn Ser Arg Asp Arg Leu Leu Asn Arg Tyr Arg Gln Ala Gly
 35 40 45
 Ser Ser Gly Pro Gly Asn Ser Gln Asn Ser Phe Leu Val Gln Glu Val
 50 55 60
 Met Glu Glu Glu Trp Asn Ala Leu Gln Ser Val Glu Asn Cys Pro Glu
 65 70 75 80
 Asp Leu Ala Gln Leu Glu Glu Leu Ile Asp Met Ala Val Leu Glu Glu
 85 90 95
 Ile Gln Gln Glu Leu Ile Asn Gln Gly Leu

100

105

<210> 5959
 <211> 830
 <212> DNA
 <213> Homo sapiens

<400> 5959
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 120
 ctatatgatg acaatctctt ctgtcatttg gtggatgaag tactcttggt tgaaagggag
 180
 ctacacagtg ttcattggcta tcctggcact tttgctaatt gtatgcatat tctatcagag
 240
 gaaacctggt ttcaaagatg ggtgacgggg gagagaaaat ttgctcttca aaaaatggac
 300
 tcaatgcttt cctcagaagc tgcttgggta tcgcaatata aggatatcac tgacgtggat
 360
 gaaatgaaag ttccagattg tgcagaaact tttatgactc tactcttggt tataactgac
 420
 aggtataaaa atcttccac agcttcccga aagcttcagt tcctggagtt acagaaggac
 480
 ttagtagatg attttaggat acgattaaca caagtgatga aagaagagac tagagcttcc
 540
 cttggctttc gatactgtgc aattcttaat gctgtgaact acatctcaac agtactagca
 600
 gattgggctg acaatgtttt ctttctacaa cttcaacagg ctgcactgga ggtgtttgca
 660
 gagaataata ctctgagtaa attgcagcta ggacagctag cctctatgga gagctctgtc
 720
 tttgatgaca tgattaacct cttagaacgt ttaaagcatg atatgttgac ccgtcaagta
 780
 gaccacgttt ttagagaagt taaagatgct gcaaaattgt ataaaaaaga
 830

<210> 5960
 <211> 251
 <212> PRT
 <213> Homo sapiens

<400> 5960
 Met Met Leu Val Leu Glu Lys Leu Ala Thr Asp Ile Pro Cys Leu Leu
 1 5 10 15
 Tyr Asp Asp Asn Leu Phe Cys His Leu Val Asp Glu Val Leu Leu Phe
 20 25 30
 Glu Arg Glu Leu His Ser Val His Gly Tyr Pro Gly Thr Phe Ala Asn
 35 40 45
 Cys Met His Ile Leu Ser Glu Glu Thr Cys Phe Gln Arg Trp Val Thr
 50 55 60
 Gly Glu Arg Lys Phe Ala Leu Gln Lys Met Asp Ser Met Leu Ser Ser
 65 70 75 80
 Glu Ala Ala Trp Val Ser Gln Tyr Lys Asp Ile Thr Asp Val Asp Glu

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<210> 5962
<211> 114
<212> PRT
<213> Homo sapiens
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<400> 5962

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Met Cys Gly Asp Met Gln Glu Gly Thr Pro Arg Cys Ala Tyr Thr Ala
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Leu Leu Pro Pro Gly Pro Thr Leu His Arg Asp Thr Arg Arg Glu Ser
          20           25           30
Leu Ser His Ser His Gln Pro Gly Leu Ser Gly Glu Gly Ala Gln Glu
          35           40           45
Gln Ala Arg Ile Asp Thr Gly Ile His Met Lys Arg Met Gln Thr Pro
          50           55           60
Arg His Pro Ala Leu Ser Gln Ser Leu Ile Lys Phe Gly Ile Leu Phe
65           70           75           80
Asp Pro Ser Ile Phe Leu Glu Thr Gly Ser Arg Phe Ile Ala Gln
          85           90           95
Ala Glu Cys Ser Gly Tyr Ser Gln Ala Pro Leu Glu Arg Thr Ala Ala
          100          105          110
Pro Ser

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<210> 5963

<211> 1288

<212> DNA

<213> Homo sapiens

<400> 5963

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120
gaagaaaaag tgaaacgatc tgtgaaagat gctgccaaga agggccagaa ggatgtctgc
180
atagttcttg ccaaggagat gatcaggtca aggaaggctg tgagcaagct gtatgcatcc
240
aaagcacaca tgaactcagt gctcatgggg atgaagaacc agctcgcggt cttgcgagtg
300
gctgggtccc tgcagaagag cacagaagtg atgaaggcca tgcaaagtct tgtgaagatt
360
ccagagattc aggccaccat gagggagttg tccaaagaaa tgatgaaggc tgggatcata
420
gaggagatgt tagaggacac ttttgaaagc atggacgatc aggaagaaat ggaggaagaa
480
gcagaaatgg aaattgacag aattctcttt gaaattacag caggggcctt gggcaaagca
540
cccagtaaag tgactgatgc cttccagag ccagaacctc caggagcgat ggctgcctca
600
gaggatgagg aggaggagga agaggctctg gaggccatgc agtcccggct ggccacactc
660
cgcagctagg ggctgcctac cccgctgggt gtgcacacac tcctctcaag agctgccatt
720
ttatgtgtct cttgcactac acctctgttg tgaggactac cattttggag aaggttctgt
780
ttgtctcttt tcattctctg cccaggtttt gggatcgcaa agggattggt cttataaaag
840
tggcataaat aaatgcatca tttttaggag tatagacaga tatatcttat tgtggggagg
900

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ggaaagaaat ccattctgtc atgaagcact tctgaaaata taggtgattg cctgaatgtc
 960
 gaagactcta cttttgtcta taaaacacta tataaatgaa ttttaataaa tttttgcttc
 1020
 agcacttggc cccattgtag attgccctgt gcagtaaact ttcaaggtgt cagctgcccc
 1080
 agattgcttc atttgetggg tgtggaaaga gttgctatgg ccaggcatat gggatttgga
 1140
 agctcagcag aagtgacttc tgctctgtgg ttgctgtccc ccggctttca cagacatggg
 1200
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 1260
 ctggttggtg gtggctgcat tatgtccg
 1288

<210> 5964
 <211> 222
 <212> PRT
 <213> Homo sapiens

<400> 5964
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 Asn Glu Trp Ser Leu Lys Ile Arg Lys Glu Met Arg Val Val Asp Arg
 20 25 30
 Gln Ile Arg Asp Ile Gln Arg Glu Glu Lys Val Lys Arg Ser Val
 35 40 45
 Lys Asp Ala Ala Lys Lys Gly Gln Lys Asp Val Cys Ile Val Leu Ala
 50 55 60
 Lys Glu Met Ile Arg Ser Arg Lys Ala Val Ser Lys Leu Tyr Ala Ser
 65 70 75 80
 Lys Ala His Met Asn Ser Val Leu Met Gly Met Lys Asn Gln Leu Ala
 85 90 95
 Val Leu Arg Val Ala Gly Ser Leu Gln Lys Ser Thr Glu Val Met Lys
 100 105 110
 Ala Met Gln Ser Leu Val Lys Ile Pro Glu Ile Gln Ala Thr Met Arg
 115 120 125
 Glu Leu Ser Lys Glu Met Met Lys Ala Gly Ile Ile Glu Glu Met Leu
 130 135 140
 Glu Asp Thr Phe Glu Ser Met Asp Asp Gln Glu Glu Met Glu Glu Glu
 145 150 155 160
 Ala Glu Met Glu Ile Asp Arg Ile Leu Phe Glu Ile Thr Ala Gly Ala
 165 170 175
 Leu Gly Lys Ala Pro Ser Lys Val Thr Asp Ala Leu Pro Glu Pro Glu
 180 185 190
 Pro Pro Gly Ala Met Ala Ala Ser Glu Asp Glu Glu Glu Glu Glu
 195 200 205
 Ala Leu Glu Ala Met Gln Ser Arg Leu Ala Thr Leu Arg Ser
 210 215 220

<210> 5965
 <211> 1011
 <212> DNA
 <213> Homo sapiens

<400> 5965

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ccgcgcgcgt ccctgtacaa actggtgggc tcgccgcctt ggaaagaggc tttccggcag
120
agatgcctgg agagaatgag aaacagccgg gacaggctcc taaacaggta ccgccaggct
180
ggaagcagtg ggccagggaa ttctcagaac agctttctag ttcaagaggt gatggaagaa
240
gagtggaatg ctttgcagnn tcagtgggag aattgtccag aagacttggc tcagttggag
300
gagctgatag acatggctgt gctggaggaa attcaacagg agctgatcaa ccaagagcag
360
tccatcatca gcgagtatga gaagagcttg cagtttgatg aaaagtgtct cagcatcatg
420
ctggctgagt gggaggcaaa cccactcatc tgtcctgtat gtacaaagta caactgaga
480
atcacaagcg gtgtgggtgt gtgtcagtg gtgcctgtcca tcccatctca ttcttctgag
540
ttgacagagc agaagcttcg tgcctgttta gagggtagta taaatgagca cagtgcacat
600
tgtccccaca cacctgaatt ttcagtcact ggaggaacag aagaaaagtc cagtcttctc
660
atgagctgtc tggcctgtga tacttgggct gtgatcctct agagccagct tggactcaca
720
tcattctatg gggttgaaga caactcatc cctctgagga gccttgtaca tacaagcctt
780
ttatttataa cttattttgt attgaaactt ttaaacaata ctgaagaaaa aaaaactttt
840
ccgacatctg ttcttgggtc tttgtgacgc aggttgaagg gggaggaata gaaaaagaca
900
aactgccttg gaggagataa accaatttta tgtctatcat gttatacaaa aatctagaaa
960
taatagattt gtacagaaaa aaatgataat aaatgagaac acaaaacata t
1011

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<210> 5966

<211> 233

<212> PRT

<213> Homo sapiens

<400> 5966

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Gly Asn Gly Ser Cys Gly Phe Val Ser Arg Glu Glu Glu Met Ala Glu
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Ser Leu Arg Ser Pro Arg Arg Ser Leu Tyr Lys Leu Val Gly Ser Pro
20     25     30
Pro Trp Lys Glu Ala Phe Arg Gln Arg Cys Leu Glu Arg Met Arg Asn
35     40     45
Ser Arg Asp Arg Leu Leu Asn Arg Tyr Arg Gln Ala Gly Ser Ser Gly
50     55     60
Pro Gly Asn Ser Gln Asn Ser Phe Leu Val Gln Glu Val Met Glu Glu
65     70     75     80
Glu Trp Asn Ala Leu Gln Xaa Gln Trp Xaa Asn Cys Pro Glu Asp Leu

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<400> 5967
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gtcttttgcc tccagtggat cagtgatttt tcagcagaaa atctttcctc tccattgctt
120
tgtgcttttg ttgctaggca gtcaacagca gggctactaa agcacttcta atttagacaa
180
atcttttcct ctattttaga aatggatttc aatgggtgttc agtttgtttg cagaaacctt
240
ctgaaagtga gcatgttttt gaacacatta acaccgaagt tctacgtggc cctaacaggc
300
acttcctcac taatatcagg gcttattttg atatttgaat ggtgggtattt tcgcaaatac
360
ggaacttcat tcattgaaca agtctcagta agccacttgc gcccccttct gggagggggt
420
gacaacaact cttccaacaa ttctaattcc agtaacgggg actcagattc caataggcaa
480
agtgtctcag aatgcaaagt atggcgaaat ccactaaatt tatttagggg tgctgaatac
540
aatcgggtata cttgggtgac aggacgagag cctcttactt actatgacat gaatctctct
600
gccccagacc accagacatt ctttacttgt gactcggacc atctgcgtcc cgcagatgca
660
ataatgcaga aagcctggag agagagaaa cccaagcta ggatttctgc agctcatgaa
720
gccttggaga taaatgagac gagacaccaa tgtcttggtg tacatcaaaa gaaggctagc
780
aatgtgtgcc agaagactcg ggaggaccag ggaagcaaag cccttctgga actacaagca
840

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tatgctgatg ttcaggcagt cttagcaaag tatgatgata taagcttacc aaagtcagca
 900
 acaatatgct acacagctgc tttgctcaaa gcaagagctg tctctgacaa attctctcct
 960
 gaggctgcat ctcggcgggg gctgagcaca gcagagatga atgcagtaga ggccattcat
 1020
 agagctgtgg aattcaatcc tcatgtgcca aaatacctac tagaaatgaa aagcttaatc
 1080
 ctacccccag aacatatacct gaagagagga gacagtgaag caatagcata tgcattcttt
 1140
 catcttgac actggaagag agtgggaagg gctttgaatc ttttgcattg tacgtgggaa
 1200
 ggcacttttc ggatgatccc ttatcccttg gaaaaggggc acctatttta tccttaccce
 1260
 atctgtacag aaacagcaga ccgagagctg cttccatctt tccatgaagt ctgagtttac
 1320
 ccaaagaagg agcttccctt ctttattctc tttactgctg gattatgttc cttcacagcc
 1380
 atgctggccc tcctgacaca tcagttcccg gaacttatgg gggctctcgc aaaagctgtg
 1440
 agtgtttgcc tagagggagg ccttggggaa tggatgggga aagccaaggg cataaaagca
 1500
 gcgtgagaga aatgggggtg ccttacagaa atgggtacga gcctgcaaag atcattgttc
 1560
 accatttaat tttcatgatc gtcaatggaa tcaaagcatt aagggtcaaa tgagaaagtg
 1620
 caggttgta ctgcatgcct tgcctcattt cacaacaaat tcttagcagt ttccaaaaaa
 1680
 tgcaggaggt ccaaaaggat ggaatgattt aggaaatcct agcaaataaa aatgtgtggg
 1740
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 1800
 ctttcc
 1806

<210> 5968

<211> 434

<212> PRT

<213> Homo sapiens

<400> 5968

Met Asp Phe Asn Gly Val Gln Phe Val Cys Arg Asn Leu Leu Lys Val
 1 5 10 15
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 20 25 30
 Gly Thr Ser Ser Leu Ile Ser Gly Leu Ile Leu Ile Phe Glu Trp Trp
 35 40 45
 Tyr Phe Arg Lys Tyr Gly Thr Ser Phe Ile Glu Gln Val Ser Val Ser
 50 55 60
 His Leu Arg Pro Leu Leu Gly Gly Val Asp Asn Asn Ser Ser Asn Asn
 65 70 75 80
 Ser Asn Ser Ser Asn Gly Asp Ser Asp Ser Asn Arg Gln Ser Val Ser
 85 90 95
 Glu Cys Lys Val Trp Arg Asn Pro Leu Asn Leu Phe Arg Gly Ala Glu

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Tyr Asn Arg Tyr Thr Trp Val Thr Gly Arg Glu Pro Leu Thr Tyr Tyr
      115      120      125
Asp Met Asn Leu Ser Ala Gln Asp His Gln Thr Phe Phe Thr Cys Asp
      130      135      140
Ser Asp His Leu Arg Pro Ala Asp Ala Ile Met Gln Lys Ala Trp Arg
145      150      155      160
Glu Arg Asn Pro Gln Ala Arg Ile Ser Ala Ala His Glu Ala Leu Glu
      165      170      175
Ile Asn Glu Thr Arg His Gln Cys Leu Gly Val His Gln Lys Lys Ala
      180      185      190
Ser Asn Val Cys Gln Lys Thr Arg Glu Asp Gln Gly Ser Lys Ala Leu
      195      200      205
Leu Glu Leu Gln Ala Tyr Ala Asp Val Gln Ala Val Leu Ala Lys Tyr
      210      215      220
Asp Asp Ile Ser Leu Pro Lys Ser Ala Thr Ile Cys Tyr Thr Ala Ala
225      230      235      240
Leu Leu Lys Ala Arg Ala Val Ser Asp Lys Phe Ser Pro Glu Ala Ala
      245      250      255
Ser Arg Arg Gly Leu Ser Thr Ala Glu Met Asn Ala Val Glu Ala Ile
      260      265      270
His Arg Ala Val Glu Phe Asn Pro His Val Pro Lys Tyr Leu Leu Glu
      275      280      285
Met Lys Ser Leu Ile Leu Pro Pro Glu His Ile Leu Lys Arg Gly Asp
      290      295      300
Ser Glu Ala Ile Ala Tyr Ala Phe Phe His Leu Ala His Trp Lys Arg
305      310      315      320
Val Glu Gly Ala Leu Asn Leu Leu His Cys Thr Trp Glu Gly Thr Phe
      325      330      335
Arg Met Ile Pro Tyr Pro Leu Glu Lys Gly His Leu Phe Tyr Pro Tyr
      340      345      350
Pro Ile Cys Thr Glu Thr Ala Asp Arg Glu Leu Leu Pro Ser Phe His
      355      360      365
Glu Val Ser Val Tyr Pro Lys Lys Glu Leu Pro Phe Phe Ile Leu Phe
      370      375      380
Thr Ala Gly Leu Cys Ser Phe Thr Ala Met Leu Ala Leu Leu Thr His
385      390      395      400
Gln Phe Pro Glu Leu Met Gly Val Phe Ala Lys Ala Val Ser Val Cys
      405      410      415
Leu Glu Gly Gly Leu Gly Glu Trp Met Gly Lys Ala Lys Gly Ile Lys
      420      425      430
Ala Ala

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<210> 5969

<211> 429

<212> DNA

<213> Homo sapiens

<400> 5969

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cggccgccccg tgtgtgacgt cagggagctg caggcccagg aagccttgca gaacggccag
60
ctgggcggcg ggggaaggggt cccggatctg cagcctgggg tcttgccag ccaggccatg
120

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attgagaaga tcttgagcga ggacccccgg tggcaagatg ccaacttcgt gctgggcagc
 180
 tacaagacgg agcagtgtccc gaagccgcca cgcctgtgcc gccagggcta tgcgtgcccc
 240
 cactaccaca atagccggga caggcggcgc aacccccggc ggttcagta cagggtccacg
 300
 ccctgccccca gcgtgaagca cggggatgag tggggggaac cctcacgctg cgatggcggc
 360
 gacggctgcc agtattgcca ctcccgcacg gagcagcagt tccatcccga gatctacaaa
 420
 tctacaaaa
 429

<210> 5970
 <211> 143
 <212> PRT
 <213> Homo sapiens

<400> 5970
 Arg Pro Pro Val Cys Asp Val Arg Glu Leu Gln Ala Gln Glu Ala Leu
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 Gln Asn Gly Gln Leu Gly Gly Gly Glu Gly Val Pro Asp Leu Gln Pro
 20 25 30
 Gly Val Leu Ala Ser Gln Ala Met Ile Glu Lys Ile Leu Ser Glu Asp
 35 40 45
 Pro Arg Trp Gln Asp Ala Asn Phe Val Leu Gly Ser Tyr Lys Thr Glu
 50 55 60
 Gln Cys Pro Lys Pro Pro Arg Leu Cys Arg Gln Gly Tyr Ala Cys Pro
 65 70 75 80
 His Tyr His Asn Ser Arg Asp Arg Arg Arg Asn Pro Arg Arg Phe Gln
 85 90 95
 Tyr Arg Ser Thr Pro Cys Pro Ser Val Lys His Gly Asp Glu Trp Gly
 100 105 110
 Glu Pro Ser Arg Cys Asp Gly Gly Asp Gly Cys Gln Tyr Cys His Ser
 115 120 125
 Arg Thr Glu Gln Gln Phe His Pro Glu Ile Tyr Lys Ser Thr Lys
 130 135 140

<210> 5971
 <211> 565
 <212> DNA
 <213> Homo sapiens

<400> 5971
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 tgtgaatagc acagtcttcc ctttcatgtg gcactgaagt taaaatgcat agagctcttt
 120
 catgtccctt aggtcagcta agcccacatc agtgtccaaa taggcaacat ccctattttta
 180
 tagatgggtca tccccatttt agagatagct cccttttata tccccatttt acaggtgaag
 240
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 300

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 360
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 420
 cccaggactg tggccgtgga tgccagagcg aggatgtgaa tcctgttggg ttctgaagcc
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 565

<210> 5972

<211> 104

<212> PRT

<213> Homo sapiens

<400> 5972

Met	His	Arg	Ala	Leu	Ser	Cys	Pro	Leu	Gly	Gln	Leu	Ser	Pro	His	Gln
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Cys	Pro	Asn	Arg	Gln	His	Pro	Tyr	Phe	Ile	Asp	Gly	His	Pro	His	Phe
		20						25				30			
Arg	Asp	Ser	Ser	Leu	Leu	Tyr	Pro	His	Phe	Thr	Gly	Glu	Gly	Ile	Glu
	35					40					45				
Ala	Gln	Lys	Val	Arg	Ser	Leu	Leu	Gln	Asp	Asp	Gln	Leu	Asn	Gln	Asn
	50					55					60				
Phe	Arg	Ala	Ser	Asn	Thr	Lys	Cys	Val	Pro	Leu	Ser	Ser	Val	Ser	His
65				70					75					80	
Leu	Leu	Pro	Arg	Gly	Ser	Ala	Ser	Ser	Leu	Trp	Pro	Leu	Ser	Ile	Leu
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Pro	Pro	Thr	Leu	Leu	Pro	Ala	Ser								
			100												

<210> 5973

<211> 797

<212> DNA

<213> Homo sapiens

<400> 5973

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 120
 aacgagcctt cgaatcatgg acgcgcgggc ccagctcctc ctccgagttc ctcatccggg
 180
 gccgtcactc acatccgggg cctcactca catccgggac cctcatccgg ggctctcacc
 240
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 300
 actccgtcgc cggaagtgcc accgagaagc gccggcctcg gggctgtcta cagcggcccc
 360
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 420
 cccctcccct cggtgagtac ccggaagccg ttttggggtc gcagcggggg ggcagcttgt
 480

tttgccttca cgggagtaga aggaggcggc gtccgccgcg gccgacggta gttcgcttcc
 540
 ccgagagtgc gcggaggccc ggggtgcgagg agggcctggt tctcttcagc cctggttcat
 600
 tcacctcgcg gaccgagggc ccgccgtcag gagccggcga ccgtgccctg gtgcgagctg
 660
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 720
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 780
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 797

<210> 5974

<211> 107

<212> PRT

<213> Homo sapiens

<400> 5974

Met	Glu	Gly	Ser	Gly	Thr	Gly	Lys	Arg	Arg	Gly	Lys	Ala	Ala	Lys	Thr
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Ser	Leu	Arg	Ile	Met	Asp	Ala	Arg	Ala	Gln	Leu	Leu	Leu	Arg	Val	Pro
		20					25					30			
His	Pro	Gly	Pro	Ser	Leu	Thr	Ser	Gly	Ala	Leu	Thr	His	Ile	Arg	Asp
		35					40					45			
Pro	His	Pro	Gly	Leu	Ser	Pro	Thr	Ser	Gly	Thr	Leu	Met	Pro	Gly	Arg
	50					55					60				
Arg	Arg	Gly	Gly	Pro	Ser	Phe	Gly	Thr	Pro	Ala	Leu	Arg	Arg	Arg	Lys
65					70					75					80
Cys	His	Arg	Glu	Ala	Pro	Ala	Ser	Gly	Leu	Ser	Thr	Ala	Ala	Arg	Glu
			85						90					95	
Arg	Leu	Trp	Trp	Pro	Arg	Ala	Arg	Val	Cys	Arg					
			100						105						

<210> 5975

<211> 2175

<212> DNA

<213> Homo sapiens

<400> 5975

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 120
 cagagggcca cgtacaagta tgagatgatt aacaagcaga atgagcagat gcatgcgctg
 180
 ctggccattg ccctcacgat gtaccccatg cgtatcgatg agagcattca cctccagctg
 240
 cgggagaaat atggggacaa gatgttgcgc atgtcttatc ccgctgatga ttatgagtct
 300
 gaggcggctt atgacccta cgcttatccc agcgactatg atatgcacac aggagatcca
 360
 aagcaggacc ttgcttatga acgtcagtat gaacagcaaa cctatcaggt gatccctgag
 420

gtgatcaaaa acttcatcca gtatttccac aaaactgtct cagatttgat tgaccagaaa
480
gtgtatgagc tacaggccag tcgtgtctcc agtgatgtca ttgaccagaa ggtgtatgag
540
atccaggaca tctatgagaa cagctggacc aagctgactg aaagattctt caagaatata
600
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660
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720
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780
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840
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960
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1020
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1080
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1140
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1200
tgccagggtca ccacatacta ttatgttggg tttgcatatt tgatgatgcg tcgttaccag
1260
gatgccatcc gggctcttcgc caacatcctc ctctacatcc agaggaccaa gagcatgttc
1320
cagaggacca cgtacaagta tgagatgatt aacaagcaga atgagcagat gcatgcgctg
1380
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1440
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1560
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1620
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1680
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1740
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1800
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1920
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1980
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2040

acctagatca gccatcagcc tgtcaactca gttaacaagt taaggaccga agtgtttcaa
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 2160
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 2175

<210> 5976
 <211> 564
 <212> PRT
 <213> Homo sapiens

<400> 5976
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 Asp Leu Ala Tyr Glu Arg Gln Tyr Glu Gln Gln Thr Tyr Gln Val Ile
 35 40 45
 Pro Glu Val Ile Lys Asn Phe Ile Gln Tyr Phe His Lys Thr Val Ser
 50 55 60
 Asp Leu Ile Asp Gln Lys Val Tyr Glu Leu Gln Ala Ser Arg Val Ser
 65 70 75 80
 Ser Asp Val Ile Asp Gln Lys Val Tyr Glu Ile Gln Asp Ile Tyr Glu
 85 90 95
 Asn Ser Trp Thr Lys Leu Thr Glu Arg Phe Phe Lys Asn Thr Pro Trp
 100 105 110
 Pro Glu Ala Glu Ala Ile Ala Pro Gln Val Gly Asn Asp Ala Val Phe
 115 120 125
 Leu Ile Leu Tyr Lys Glu Leu Tyr Tyr Arg His Ile Tyr Ala Lys Val
 130 135 140
 Ser Gly Gly Pro Ser Leu Glu Gln Arg Phe Glu Ser Tyr Tyr Asn Tyr
 145 150 155 160
 Cys Asn Leu Phe Asn Tyr Ile Leu Asn Ala Asp Gly Pro Ala Pro Leu
 165 170 175
 Glu Leu Pro Asn Gln Trp Leu Trp Asp Ile Ile Asp Glu Phe Ile Tyr
 180 185 190
 Gln Phe Gln Ser Phe Ser Gln Tyr Arg Cys Lys Thr Ala Lys Lys Ser
 195 200 205
 Glu Glu Glu Ile Asp Phe Leu Arg Ser Asn Pro Lys Ile Trp Asn Val
 210 215 220
 His Ser Val Leu Asn Val Leu His Ser Leu Val Asp Lys Ser Asn Ile
 225 230 235 240
 Asn Arg Gln Leu Glu Val Tyr Thr Ser Gly Gly Asp Pro Glu Ser Val
 245 250 255
 Ala Gly Glu Tyr Gly Arg His Ser Leu Tyr Lys Met Leu Gly Tyr Phe
 260 265 270
 Ser Leu Val Gly Leu Leu Arg Leu His Ser Leu Leu Gly Asp Tyr Tyr
 275 280 285
 Gln Ala Ile Lys Val Leu Glu Asn Ile Glu Leu Asn Lys Lys Ser Met
 290 295 300
 Tyr Ser Arg Val Pro Glu Cys Gln Val Thr Thr Tyr Tyr Tyr Val Gly
 305 310 315 320
 Phe Ala Tyr Leu Met Met Arg Arg Tyr Gln Asp Ala Ile Arg Val Phe

325 330 335
 Ala Asn Ile Leu Leu Tyr Ile Gln Arg Thr Lys Ser Met Phe Gln Arg
 340 345 350
 Thr Thr Tyr Lys Tyr Glu Met Ile Asn Lys Gln Asn Glu Gln Met His
 355 360 365
 Ala Leu Leu Ala Ile Ala Leu Thr Met Tyr Pro Met Arg Ile Asp Glu
 370 375 380
 Ser Ile His Leu Gln Leu Arg Glu Lys Tyr Gly Asp Lys Met Leu Arg
 385 390 395 400
 Met Gln Lys Gly Asp Pro Gln Val Tyr Glu Glu Leu Phe Ser Tyr Ser
 405 410 415
 Cys Pro Lys Phe Leu Ser Pro Val Val Pro Asn Tyr Asp Asn Val His
 420 425 430
 Pro Asn Tyr His Lys Glu Pro Phe Leu Gln Gln Leu Lys Val Phe Ser
 435 440 445
 Asp Glu Val Gln Gln Gln Ala Gln Leu Ser Thr Ile Arg Ser Phe Leu
 450 455 460
 Lys Leu Tyr Thr Thr Met Pro Val Ala Lys Leu Ala Gly Phe Leu Asp
 465 470 475 480
 Leu Thr Glu Gln Glu Phe Arg Ile Gln Leu Leu Val Phe Lys His Lys
 485 490 495
 Met Lys Asn Leu Val Trp Thr Ser Gly Ile Ser Ala Leu Asp Gly Glu
 500 505 510
 Phe Gln Ser Ala Ser Glu Val Asp Phe Tyr Ile Asp Lys Asp Met Ile
 515 520 525
 His Ile Ala Asp Thr Lys Val Ala Arg Arg Tyr Gly Asp Phe Phe Ile
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 Arg Gln Ile His Lys Phe Glu Glu Leu Asn Arg Thr Leu Lys Lys Met
 545 550 555 560
 Gly Gln Arg Pro

<210> 5977
 <211> 2320
 <212> DNA
 <213> Homo sapiens

<400> 5977
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 120
 ccagtgact ttgggcttgg tcatgctact tgctttgggc aatgaaatgt gagtagacat
 180
 caagtatacc accatcacac agaaatttta ttttttattt tattttttat agagacaggg
 240
 tctcactaca ttgcctagat tgggtctcaa ctctggggt caagcaatct tcctcttctt
 300
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 360
 taatgcatgt ggtaatccac aggagatcac atttagtata tgaccaagtt aattaagaag
 420
 tcaaaaaaca cgttaaattt aagcagaata aggctgggtt cggtgggtca tgctgtgat
 480

cccagcactt tgggaggcag aggtgggcag atcattnagg ccaggagttc gagaccagcc
540
tggacaacat ggcganaagt ctttactaaa aatacaaaaa tcagctgggc gtggtggtac
600
acaccctga tcccagctac tcaggaggct taggcacatg atncgcttga acctgggaga
660
tggaagctgc agtaagctag atcctgccac tgtactccag cctgggtgac agatcaagac
720
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780
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840
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960
gccgggatta taggcatgga gaaccacacc tggctagttt ttgtattttt agtagagatg
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aagtttcacc atgttggcct ggctgggtctc aaactcctga cctcaagtga tctgcccgc
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1140
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1260
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1320
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1440
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1680
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1740
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1980
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2100

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 2220
 ctttgatccc atttttttgc caccatgcat atattcatct agttccttgt ctagatcctt
 2280
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 2320

<210> 5978

<211> 77

<212> PRT

<213> Homo sapiens

<400> 5978

Met	Thr	Lys	Leu	Ile	Lys	Lys	Ser	Lys	Asn	Thr	Leu	Asn	Leu	Ser	Arg
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Ile	Arg	Leu	Gly	Ser	Val	Ala	His	Ala	Cys	Asp	Pro	Ser	Thr	Leu	Gly
		20						25					30		
Gly	Arg	Gly	Gly	Gln	Ile	Ile	Xaa	Ala	Arg	Ser	Ser	Arg	Pro	Ala	Trp
		35					40					45			
Thr	Thr	Trp	Arg	Xaa	Val	Phe	Thr	Lys	Asn	Thr	Lys	Ile	Ser	Trp	Ala
	50					55					60				
Trp	Trp	Tyr	Thr	Pro	Val	Ile	Pro	Ala	Thr	Gln	Glu	Ala			
65					70					75					

<210> 5979

<211> 1095

<212> DNA

<213> Homo sapiens

<400> 5979

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 180
 aattgaggcc taaggcaggg tcacttgctt ggccccttcc ccttcacccg tcagagtcca
 240
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 360
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 420
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 480
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 660

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 720
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 780
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 900
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 960
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 1080
 aaaaaaaaaa aaaaa
 1095

<210> 5980
 <211> 169
 <212> PRT
 <213> Homo sapiens

<400> 5980
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 20 25 30
 Ser Gly Gln Glu Asp Tyr Asp Arg Leu Arg Pro Leu Ser Tyr Gln Asn
 35 40 45
 Thr His Leu Val Leu Ile Cys Tyr Asp Val Met Asn Pro Thr Ser Tyr
 50 55 60
 Asp Asn Val Leu Ile Lys Trp Phe Pro Glu Val Thr His Phe Cys Arg
 65 70 75 80
 Gly Ile Pro Met Val Leu Ile Gly Cys Lys Thr Asp Leu Arg Lys Asp
 85 90 95
 Lys Glu Gln Leu Arg Lys Leu Arg Ala Ala Gln Leu Glu Pro Ile Thr
 100 105 110
 Tyr Met Gln Gly Leu Ser Ala Cys Glu Gln Ile Arg Ala Ala Leu Tyr
 115 120 125
 Leu Glu Cys Ser Ala Lys Phe Arg Glu Asn Val Glu Asp Val Phe Arg
 130 135 140
 Glu Ala Ala Lys Val Ala Leu Ser Ala Leu Lys Lys Ala Gln Arg Gln
 145 150 155 160
 Lys Lys Arg Arg Leu Cys Leu Leu Leu
 165

<210> 5981
 <211> 677
 <212> DNA
 <213> Homo sapiens

<400> 5981
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 gagagcttca gctgccccag ggtgtgcagg tttgcttttag agggtcggcg ggcggagctt
 180
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 240
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 360
 cgttcagtgc agcgtgtaaa gacagctcta agaatttaaa agacgcctga gtcagaacat
 420
 ttaaagtctt ggggtccctgt agcagcgttt taacacgtct gagtgcagag ggtggagaat
 480
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 540
 aaaacgcaag gggacactta ccctaggggt ggacgaacag ctagctttttt ggaatttggg
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 660
 caacgataaa cagaatt
 677

<210> 5982
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 5982
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 Arg Ile Pro Lys Ser Asp Asp Gly Thr Arg Thr Gly Arg Asn Asp Ser
 20 25 30
 Pro Arg Ala Pro Leu Pro Arg Ser Ser Ala Arg Arg Pro Ser Lys Ala
 35 40 45
 Asn Leu His Thr Leu Gly Gln Leu Lys Leu Ser Arg Arg Cys Arg Glu
 50 55 60
 Pro Arg Leu Gly Arg Ala Gly Gln Gln Arg Leu His Pro Arg Thr Arg
 65 70 75 80
 Pro Arg Arg Gly Ser Gly Pro Leu Val Arg Ala Gly Arg Arg Gly Trp
 85 90 95
 Gly Lys

<210> 5983
 <211> 790
 <212> DNA
 <213> Homo sapiens

<400> 5983
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 tatagtcaag aggtaagaag ttaacttaaa aagggtgaat tggtagtttt tttcctatta
 120

cattgttttc cttaaattac tggtaaattt tgaaataaac agtcccaaga tgtgattatt
 180
 tgtgtaattt ttttttttaa tttgtaaaca gggatatgac agatcttcaa ccatgttaac
 240
 attggggcct tttagaaatt ctaatttaac tgaactgggt ctgcaagaaa taaagactat
 300
 tgggttatagc agccctagga gtaggactga agtcaacagg cagtgtcctg gagaaaagga
 360
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 420
 cctggaaaacg cctgcacatg acagggctga gcccaacagc caactggact cgactcactc
 480
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 600
 cttccgaata agtgagtcaa agtgccctgat gcaggatgat actagaggca tgtttatgga
 660
 aacaactgtg ttttgtactt ccgaagatgg gcttgtatct ggtttcggac ggactgttaa
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 780
 tctattagaa
 790

<210> 5984

<211> 186

<212> PRT

<213> Homo sapiens

<400> 5984

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Leu	Gln	Glu	Ile	Lys	Thr	Ile	Gly	Tyr	Thr	Ser	Pro	Arg	Ser	Arg	Thr
			20					25					30		
Glu	Val	Asn	Arg	Gln	Cys	Pro	Gly	Glu	Lys	Glu	Pro	Val	Ser	Asp	Leu
		35					40					45			
Gln	Leu	Gly	Leu	Asp	Ala	Val	Glu	Pro	Thr	Ala	Leu	His	Lys	Thr	Leu
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 <213> Homo sapiens

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 Val Lys Ile Gln Asp Thr Asn Val Thr Ser Glu Asp Lys Lys Phe His

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 Trp Ile Lys Ala Arg Ser Gly Asp Asn Pro Val Tyr Ile Trp Gly His
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 Lys Leu Tyr Ser Ile Ala Ala Pro Ala Arg Ser Phe Arg Asp Phe Lys
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 Val Asn Thr His Val Trp Thr Lys Ser Lys Phe Met Gly Met Ser Val
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 Glu Ser Arg Asn Leu Trp Arg Glu Val Thr Arg Tyr Leu Arg Leu Gly
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<211> 757

<212> PRT

<213> Homo sapiens

<400> 6000

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			20					25					30		
Gln	Arg	Pro	Asp	Gln	Leu	Asp	Lys	Val	Glu	Gln	Tyr	Arg	Arg	Arg	Glu
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Ala	Arg	Lys	Lys	Ala	Ser	Val	Glu	Ala	Arg	Leu	Lys	Ala	Ala	Ile	Gln
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Ser	Gln	Leu	Asp	Gly	Val	Arg	Thr	Gly	Leu	Ser	Gln	Leu	His	Asn	Ala
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Leu	Asn	Asp	Val	Lys	Asp	Ile	Gln	Gln	Ser	Leu	Ala	Asp	Val	Ser	Lys
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Asp	Trp	Arg	Gln	Ser	Ile	Asn	Thr	Ile	Glu	Ser	Leu	Lys	Asp	Val	Lys
			100					105					110		
Asp	Ala	Val	Val	Gln	His	Ser	Gln	Leu	Ala	Ala	Ala	Val	Glu	Asn	Leu
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Lys	Asn	Ile	Phe	Ser	Val	Pro	Glu	Ile	Val	Arg	Glu	Thr	Gln	Asp	Leu
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Ile	Glu	Gln	Gly	Ala	Leu	Leu	Gln	Ala	His	Arg	Lys	Leu	Met	Asp	Leu
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Arg	Lys	Lys	Gln	Thr	Gly	Phe	Val	Pro	Pro	Gly	Arg	Pro	Lys	Asn	Trp
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Lys	Glu	Lys	Met	Phe	Thr	Ile	Leu	Glu	Arg	Thr	Val	Thr	Thr	Arg	Ile
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Glu	Gly	Thr	Gln	Ala	Asp	Thr	Arg	Glu	Ser	Asp	Lys	Met	Trp	Leu	Val

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Arg His Leu Glu Ile Ile	Arg Lys Tyr Val Leu	Asp Asp Leu Ile Val
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Ala Lys Asn Leu Met Val	Gln Cys Phe Pro Pro	His Tyr Glu Ile Phe
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Lys Asn Leu Leu Asn Met	Tyr His Gln Ala Leu	Ser Thr Arg Met Gln
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Asp Leu Ala Ser Glu Asp	Leu Glu Ala Asn Glu	Ile Val Ser Leu Leu
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Thr Trp Val Leu Asn Thr	Tyr Thr Ser Thr Glu	Met Met Arg Asn Val
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Glu Leu Ala Pro Glu Val	Asp Val Gly Thr Leu	Glu Pro Leu Leu Ser
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Pro His Val Val Ser Glu	Leu Leu Asp Thr Tyr	Met Ser Thr Leu Thr
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Ser Asn Ile Ile Ala Trp	Leu Arg Lys Ala Leu	Glu Thr Asp Lys Lys
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Asp Trp Val Lys Glu Thr	Glu Pro Glu Ala Asp	Gln Asp Gly Tyr Tyr
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Gln Thr Thr Leu Pro Ala	Ile Val Phe Gln Met	Phe Glu Gln Asn Leu
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Ala Gln Leu Tyr Lys Glu	Glu His Leu Arg Asn	Arg Gln His Pro His
485	490	495
Cys Tyr Val Gln Tyr Met	Ile Ala Ile Asn Asn	Cys Gln Thr Phe
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530	535	540
Ala Ile Ala Lys Glu Gly	Cys Ser Gly Leu Leu	Glu Glu Val Phe Leu
545	550	555
Asp Leu Glu Gln His Leu	Asn Glu Leu Met Thr	Lys Lys Trp Leu Leu
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580	585	590
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Glu Ala His Arg Arg Val	Val Val Glu Tyr Leu	Arg Ala Val Met Gln
610	615	620
Lys Arg Ile Ser Phe Arg	Ser Pro Glu Glu Arg	Lys Glu Gly Ala Glu
625	630	635
Lys Met Val Arg Glu Ala	Glu Gln Arg Arg Phe	Leu Phe Arg Lys Leu
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Ala Ser Gly Phe Gly Glu	Asp Val Asp Gly Tyr	Cys Asp Thr Ile Val
660	665	670
Ala Val Ala Glu Val Ile	Lys Leu Thr Asp Pro	Ser Leu Leu Tyr Leu
675	680	685
Glu Val Ser Thr Leu Val	Ser Lys Tyr Pro Asp	Ile Arg Asp Asp His
690	695	700
Ile Gly Ala Leu Leu Ala	Val Arg Gly Asp Ala	Ser Arg Asp Met Lys

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Gln Thr Ile Met Glu	Thr Leu Glu Gln Gly	Pro Ala Gln Ala Ser Pro				
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<210> 6001
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 <212> DNA
 <213> Homo sapiens

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<210> 6002

<211> 263

<212> PRT

<213> Homo sapiens

<400> 6002

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 50 55 60
 Gly Asn His Ser Tyr Cys Arg Asn Pro Asp Glu Asp Pro Ala Gly Pro
 65 70 75 80
 Trp Cys Tyr Val Ser Gly Glu Ala Gly Val Pro Glu Lys Arg Pro Cys
 85 90 95
 Glu Asp Leu Arg Cys Pro Glu Thr Thr Ser Gln Ala Leu Pro Ala Phe
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 Thr Thr Glu Ile Gln Glu Ala Ser Glu Gly Pro Gly Ala Asp Glu Val
 115 120 125
 Gln Val Phe Ala Pro Ala Asn Ala Leu Pro Ala Arg Ser Glu Ala Ala
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 Ala Val Gln Pro Val Ile Gly Ile Ser Gln Arg Val Arg Met Asn Ser
 145 150 155 160
 Lys Glu Lys Lys Asp Leu Gly Thr Leu Gly Tyr Val Leu Gly Ile Thr
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 Ser Tyr Lys Arg Gly Lys Asp Leu Lys Glu Gln His Asp Gln Lys Val
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 Cys Glu Arg Glu Met Gln Arg Ile Thr Leu Pro Leu Ser Ala Phe Thr
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 Asn Pro Thr Cys Glu Ile Val Asp Glu Lys Thr Val Val Val His Thr
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<210> 6003
 <211> 3107
 <212> DNA
 <213> Homo sapiens

<400> 6003
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<210> 6004

<211> 140

<212> PRT

<213> Homo sapiens

<400> 6004

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Pro	Ala	Val	Pro	Lys	Val	Ala	Pro	Gly	Thr	Met	Pro	Thr	Arg	Pro	Glu
		35				40					45				
Gly	Gly	Thr	Glu	Thr	Thr	Ser	Met	Leu	Xaa	Val	Pro	Gly	Val	Thr	Gln
	50				55					60					
Ser	Pro	Arg	Gly	Glu	Arg	Gly	Ser	Gly	Pro	His	Ala	Val	Gln	Gly	Val
65				70				75					80		
Ala	Leu	Pro	Xaa	Arg	Gly	Ser	Pro	Arg	Gly	Pro	Gly	Pro	Arg	Ala	Pro
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 <212> PRT
 <213> Homo sapiens

<400> 6006
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 Gly Ser Ala His Ser Glu Pro Gly Pro Pro Gly Pro Pro Gly Pro Pro
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 Gly Pro Met Gly Leu Gln Gly Ile Gln Gly Pro Lys Gly Leu Asp Gly
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<210> 6007
 <211> 693
 <212> DNA
 <213> Homo sapiens

<400> 6007

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<213> Homo sapiens

<400> 6008

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			20					25					30		
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		35					40					45			
Ser	Ser	Thr	Asn	Thr	Val	Gly	Ala	Thr	Val	Asn	Ser	Gln	Ala	Ala	Gln
	50					55					60				
Ala	Gln	Pro	Pro	Ala	Met	Thr	Ser	Ser	Arg	Lys	Gly	Thr	Phe	Thr	Asp
65					70					75					80
Asp	Leu	His	Lys	Leu	Val	Asp	Asn	Trp	Ala	Arg	Asp	Ala	Met	Asn	Leu
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Ser	Gly	Arg	Arg	Gly	Ser	Lys	Gly	His	Met	Asn	Tyr	Glu	Gly	Pro	Gly
			100					105					110		
Met	Ala	Arg	Lys	Phe	Ser	Ala	Pro	Gly	Gln	Leu	Cys	Ile	Ser	Met	Thr
		115					120					125			
Ser	Asn	Leu	Gly	Gly	Ser	Ala	Pro	Ile	Ser	Ala	Ala	Ser	Ala	Thr	Ser
	130						135					140			
Leu	Gly	His	Phe	Thr	Lys	Ser	Met	Cys	Pro	Pro	Gln	Gln	Tyr	Gly	Phe
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Pro	Ala	Thr	Pro	Phe	Gly	Ala	Gln	Trp	Ser	Gly	Thr	Gly	Gly	Pro	Ala

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Pro	Gln	Pro	Leu	Gly	Gln	Phe	Gln	Pro	Val	Gly	Thr	Ala	Ser	Leu	Gln		
			180					185					190				
Asn	Phe	Asn	Ile	Ser	Asn	Leu	Gln	Lys	Ser	Ile	Ser	Asn	Pro	Pro	Gly		
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	210																

<210> 6009

<211> 1570

<212> DNA

<213> Homo sapiens

<400> 6009

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<210> 6010
 <211> 468
 <212> PRT
 <213> Homo sapiens

<400> 6010
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 Asp Thr Val Tyr Asp Val Val Val Ser Gly Gly Gly Leu Val Gly Ala
 35 40 45
 Ala Met Ala Cys Ala Leu Gly Tyr Asp Ile His Phe His Asp Lys Lys
 50 55 60
 Ile Leu Leu Leu Glu Ala Gly Pro Lys Lys Val Leu Glu Lys Leu Ser
 65 70 75 80
 Glu Thr Tyr Ser Asn Arg Val Ser Ser Ile Ser Pro Gly Ser Ala Thr
 85 90 95
 Leu Leu Ser Ser Phe Gly Ala Trp Asp His Ile Cys Asn Met Arg Tyr
 100 105 110
 Arg Ala Phe Arg Arg Met Gln Val Trp Asp Ala Cys Ser Glu Ala Leu
 115 120 125
 Ile Met Phe Asp Lys Asp Asn Leu Asp Asp Met Gly Tyr Ile Val Glu
 130 135 140
 Asn Asp Val Ile Met His Ala Leu Thr Lys Gln Leu Glu Ala Val Ser
 145 150 155 160
 Asp Arg Val Thr Val Leu Tyr Arg Ser Lys Ala Ile Arg Tyr Thr Trp
 165 170 175
 Pro Cys Pro Phe Pro Met Ala Asp Ser Ser Pro Trp Val His Ile Thr
 180 185 190
 Leu Gly Asp Gly Ser Thr Phe Gln Thr Lys Leu Leu Ile Gly Ala Asp
 195 200 205
 Gly His Asn Ser Gly Val Arg Gln Ala Val Gly Ile Gln Asn Val Ser
 210 215 220
 Trp Asn Tyr Asp Gln Ser Ala Val Val Ala Thr Leu His Leu Ser Glu
 225 230 235 240
 Ala Thr Glu Asn Asn Val Ala Trp Gln Arg Phe Leu Pro Ser Gly Pro
 245 250 255
 Ile Ala Leu Leu Pro Leu Ser Asp Thr Leu Ser Ser Leu Val Trp Ser

260 265 270
 Thr Ser His Glu His Ala Ala Glu Leu Val Ser Met Asp Glu Glu Lys
 275 280 285
 Phe Val Asp Ala Val Asn Ser Ala Phe Trp Ser Asp Ala Asp His Thr
 290 295 300
 Asp Phe Ile Asp Thr Ala Gly Ala Met Leu Gln Tyr Pro Val Ser Leu
 305 310 315 320
 Leu Lys Pro Thr Lys Val Ser Ala Arg Gln Leu Pro Pro Ser Val Pro
 325 330 335
 Trp Val Asp Ala Lys Ser Arg Val Leu Phe Pro Leu Gly Leu Gly His
 340 345 350
 Ala Ala Glu Tyr Val Arg Pro Arg Val Ala Leu Ile Gly Asp Ala Ala
 355 360 365
 His Arg Val His Pro Leu Ala His His Leu Ser Thr Ala Ala Phe Asn Gly
 370 375 380
 Asp Ile Ser Ser Leu Ala His His Leu Ser Thr Ala Ala Phe Asn Gly
 385 390 395 400
 Lys Asp Leu Gly Ser Val Ser His Leu Thr Gly Tyr Glu Thr Glu Arg
 405 410 415
 Gln Arg His Asn Thr Ala Leu Leu Ala Ala Thr Asp Leu Leu Lys Arg
 420 425 430
 Leu Tyr Ser Thr Ser Ala Ser Pro Leu Val Leu Leu Arg Thr Trp Gly
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 <211> 1331
 <212> DNA
 <213> Homo sapiens

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<210> 6012

<211> 219

<212> PRT

<213> Homo sapiens

<400> 6012

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			20					25					30		
Lys	Glu	Pro	Gly	Asp	Ser	Ala	Gln	Phe	Thr	Lys	Ala	Ile	Ala	Ile	Ile
			35				40					45			
Phe	Pro	Phe	Leu	Tyr	Leu	Leu	Glu	Lys	Val	Glu	Cys	Thr	Pro	Ser	Gln
			50			55					60				
Glu	His	Leu	Lys	His	Gln	Thr	Val	Tyr	Arg	Leu	Leu	Lys	Cys	Ala	Pro
65					70				75					80	
Arg	Gly	Lys	Asn	Gly	Phe	Thr	Pro	Leu	His	Met	Ala	Val	Asp	Lys	Asp
			85					90						95	
Thr	Thr	Asn	Val	Gly	Arg	Tyr	Pro	Val	Gly	Arg	Phe	Pro	Ser	Leu	His
			100					105					110		
Val	Val	Lys	Val	Leu	Leu	Asp	Cys	Gly	Ala	Asp	Pro	Asp	Ser	Arg	Asp
			115					120					125		
Phe	Asp	Asn	Asn	Thr	Pro	Leu	His	Ile	Ala	Ala	Gln	Asn	Asn	Cys	Pro
			130				135				140				
Ala	Ile	Met	Asn	Ala	Leu	Ile	Glu	Ala	Gly	Ala	His	Met	Asp	Ala	Thr
145					150				155					160	
Asn	Ala	Phe	Lys	Lys	Thr	Ala	Tyr	Glu	Leu	Leu	Asp	Glu	Lys	Leu	Leu

				165						170					175
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				180				185						190	
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<210> 6013

<211> 2204

<212> DNA

<213> Homo sapiens

<400> 6013

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<210> 6014

<211> 182

<212> PRT

<213> Homo sapiens

<400> 6014

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Ala	Tyr	Thr	Asp	Ala	Ala	Ser	Leu	Glu	Val	His	Leu	Ser	Thr	His	Thr
			20					25					30		
Val	Lys	His	Ala	Lys	Val	Tyr	Thr	Cys	Thr	Ile	Cys	Ser	Arg	Ala	Tyr
			35				40					45			
Thr	Ser	Glu	Thr	Tyr	Leu	Met	Lys	His	Met	Arg	Lys	His	Asn	Pro	Pro
			50			55					60				
Asp	Leu	Gln	Gln	Gln	Val	Gln	Ala	Ala	Ala	Ala	Ala	Ala	Ala	Val	Ala
65					70				75					80	
Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala
				85				90					95		
Gln	Ala	Gln	Ala	Gln	Ala	Ser	Gln	Ala	Ser	Gln	Gln	Gln	Gln	Gln	Gln

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      115      120      125
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      130      135      140
Pro Pro Pro Gln Cys Ser Phe Asp Leu Thr Pro Tyr Lys Thr Ala Glu
145      150      155      160
His His Lys Asp Ile Cys Leu Thr Val Thr Thr Ser Thr Ile Gln Val
      165      170      175
Glu His Leu Ala Ser Ser
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<210> 6015
 <211> 612
 <212> DNA
 <213> Homo sapiens

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<400> 6015
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480
gccagtgaga gaacagtcac acgataaagg cacagcacag cagttgggtg tctcttttta
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600
acctggcatg gc
612

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<210> 6016
 <211> 99
 <212> PRT
 <213> Homo sapiens

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<400> 6016
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Pro Arg Ser Pro Glu Arg Leu Pro Ala Ser Gln Gly Ile Ser Arg Gly
20      25      30
Arg Cys Lys Leu Asn Asn Asn Ser Trp Ser Gly Leu Thr Cys Pro Thr
35      40      45
Leu Ser Met Ser Cys Asn Gln Asn Lys Leu Asp Ser Pro Gly Arg Ala

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Ser His Gly Ser Ser Leu Pro Phe Asn Gln Asp Ser Gln Lys Pro Ala					
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Gln Tyr Ile					

<210> 6017
 <211> 2091
 <212> DNA
 <213> Homo sapiens

<400> 6017
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<210> 6018

<211> 537

<212> PRT

<213> Homo sapiens

<400> 6018

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 35 40 45
 Asn Ser Gln Gln Ala Ala Asn Val Leu Ser Gly Ala Cys Gly Leu Gln
 50 55 60
 Arg Gly Asp Arg Val Ala Val Met Leu Pro Arg Val Pro Glu Trp Trp
 65 70 75 80
 Leu Val Ile Leu Gly Cys Ile Arg Ala Gly Leu Ile Phe Met Pro Gly
 85 90 95
 Thr Ile Gln Met Lys Ser Thr Asp Ile Leu Tyr Arg Leu Gln Met Ser
 100 105 110
 Lys Ala Lys Ala Ile Val Ala Gly Asp Glu Val Ile Gln Glu Val Asp
 115 120 125
 Thr Val Ala Ser Glu Cys Pro Ser Leu Arg Ile Lys Leu Leu Val Ser

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Glu Lys Ser Cys Asp	Gly Trp Leu Asn Phe	Lys Lys Leu Leu Asn Glu			
145	150	155	160		
Ala Ser Thr Thr His	His Cys Val Glu Thr	Gly Ser Gln Glu Ala Ser			
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Ala Ile Tyr Phe Thr	Ser Gly Thr Ser	Gly Leu Pro Lys Met Ala Glu			
	180	185	190		
His Ser Tyr Ser Ser	Leu Gly Leu Lys Ala	Lys Met Asp Ala Gly Trp			
	195	200	205		
Thr Gly Leu Gln Ala	Ser Asp Ile Met Trp Thr	Ile Ser Asp Thr Gly			
	210	215	220		
Trp Ile Leu Asn Ile	Leu Gly Ser Leu Leu	Glu Ser Trp Thr Leu Gly			
	225	230	235	240	
Ala Cys Thr Phe Val	His Leu Leu Pro Lys	Phe Asp Pro Leu Val Ile			
	245	250	255		
Leu Lys Thr Leu Ser	Ser Tyr Pro Ile Lys	Ser Met Met Gly Ala Pro			
	260	265	270		
Ile Val Tyr Arg Met	Leu Leu Gln Gln Asp	Leu Ser Ser Tyr Lys Phe			
	275	280	285		
Pro His Leu Gln Asn	Cys Leu Ala Gly Gly	Glu Ser Leu Leu Pro Glu			
	290	295	300		
Thr Leu Glu Asn Trp	Arg Ala Gln Thr Gly	Leu Asp Ile Arg Glu Phe			
	305	310	315	320	
Tyr Gly Gln Thr Glu	Thr Gly Leu Thr Cys	Met Val Ser Lys Thr Met			
	325	330	335		
Lys Ile Lys Pro Gly	Tyr Met Gly Thr	Ala Ala Ser Cys Tyr Asp Val			
	340	345	350		
Gln Val Ile Asp Asp	Lys Gly Asn Val Leu	Pro Pro Gly Thr Glu Gly			
	355	360	365		
Asp Ile Gly Ile Arg	Val Lys Pro Ile Arg	Pro Ile Gly Ile Phe Ser			
	370	375	380		
Gly Tyr Val Glu Asn	Pro Asp Lys Thr Ala	Ala Asn Ile Arg Gly Asp			
	385	390	395	400	
Phe Trp Leu Leu Gly	Asp Arg Gly Ile Lys	Asp Glu Asp Gly Tyr Phe			
	405	410	415		
Gln Phe Met Gly Arg	Ala Asp Asp Ile Ile	Asn Ser Ser Gly Tyr Arg			
	420	425	430		
Ile Gly Pro Ser Glu	Val Glu Asn Ala Leu	Met Lys His Pro Ala Val			
	435	440	445		
Val Glu Thr Ala Val	Ile Ser Pro Asp Pro	Val Arg Gly Glu Val			
	450	455	460		
Val Lys Ala Phe Val	Val Leu Ala Ser Gln	Phe Leu Ser His Asp Pro			
	465	470	475	480	
Glu Gln Leu Thr Lys	Glu Leu Gln Gln His	Val Lys Ser Val Thr Ala			
	485	490	495		
Pro Tyr Lys Tyr Pro	Arg Lys Ile Glu Phe	Val Leu Asn Leu Pro Lys			
	500	505	510		
Thr Val Thr Gly Lys	Ile Gln Arg Ala Lys	Leu Arg Asp Lys Glu Trp			
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<210> 6019

<211> 3002

<212> DNA

<213> Homo sapiens

<400> 6019

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<210> 6020

<211> 387
 <212> PRT
 <213> Homo sapiens

<400> 6020

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Thr Gly Arg Asp Leu Ile Ala Tyr Glu Val Lys Ala Asn Gln Arg Asn
35           40           45
Ile Glu Asp Ile Cys Ile Cys Cys Gly Ser Leu Gln Val His Thr Gln
50           55           60
His Pro Leu Phe Glu Gly Gly Ile Cys Ala Pro Cys Lys Asp Lys Phe
65           70           75           80
Leu Asp Ala Leu Phe Leu Tyr Asp Asp Asp Gly Tyr Gln Ser Tyr Cys
85           90           95
Ser Ile Cys Cys Ser Gly Glu Thr Leu Leu Ile Cys Gly Asn Pro Asp
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Cys Thr Arg Cys Tyr Cys Phe Glu Cys Val Asp Ser Leu Val Gly Pro
115          120          125
Gly Thr Ser Gly Lys Val His Ala Met Ser Asn Trp Val Cys Tyr Leu
130          135          140
Cys Leu Pro Ser Ser Arg Ser Gly Leu Leu Gln Arg Arg Arg Lys Trp
145          150          155          160
Arg Ser Gln Leu Lys Ala Phe Tyr Asp Arg Glu Ser Glu Asn Pro Leu
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Glu Met Phe Glu Thr Val Pro Val Trp Arg Arg Gln Pro Val Arg Val
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Leu Ser Leu Phe Glu Asp Ile Lys Lys Glu Leu Thr Ser Leu Gly Phe
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Leu Glu Ser Gly Ser Asp Pro Gly Gln Leu Lys His Val Val Asp Val
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225          230          235          240
Val Tyr Gly Ala Thr Ala Pro Leu Gly His Thr Cys Asp Arg Pro Pro
245          250          255
Ser Trp Tyr Leu Phe Gln Phe His Arg Phe Leu Gln Tyr Ala Arg Pro
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Lys Pro Gly Ser Pro Arg Pro Phe Phe Trp Met Phe Val Asp Asn Leu
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Val Leu Asn Lys Glu Asp Leu Asp Val Ala Ser Arg Phe Leu Glu Met
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Val Arg Val Trp Ser Asn Ile Pro Ala Ile Arg Ser Ser Arg His Trp
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Ser Ser Lys Leu Ala Ala Lys Trp Pro Thr Lys Leu Val Lys Asn Cys
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385

<210> 6021

<211> 3145

<212> DNA

<213> Homo sapiens

<400> 6021

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<210> 6022
 <211> 708
 <212> PRT
 <213> Homo sapiens

<400> 6022
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 35 40 45
 Leu Arg Thr Ile Phe Leu Lys Tyr Ala Ser Ile Glu Lys Asn Gly Glu
 50 55 60
 Phe Phe Met Ser Pro Asn Asp Phe Val Thr Arg Tyr Leu Asn Ile Phe
 65 70 75 80
 Gly Glu Ser Gln Pro Asn Pro Lys Thr Val Glu Leu Leu Ser Gly Val
 85 90 95
 Val Asp Gln Thr Lys Asp Gly Leu Ile Ser Phe Gln Glu Phe Val Ala
 100 105 110
 Phe Glu Ser Val Leu Cys Ala Pro Asp Ala Leu Phe Met Val Ala Phe
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 Gln Leu Phe Asp Lys Ala Gly Lys Gly Glu Val Thr Phe Glu Asp Val
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 Lys Gln Val Phe Gly Gln Thr Thr Ile His Gln His Ile Pro Phe Asn
 145 150 155 160
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 165 170 175
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 210 215 220
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 225 230 235 240
 Gly Thr Thr Ser His Gln Val Ser Phe Ser Tyr Phe Asn Gly Phe Asn
 245 250 255
 Ser Leu Leu Asn Asn Met Glu Leu Ile Arg Lys Ile Tyr Ser Thr Leu
 260 265 270
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 275 280 285
 Ala Ala Gln Lys Phe Gly Gln Val Thr Pro Met Glu Val Asp Ile Leu
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 Pro Val Leu Leu Gln Val Ala Glu Ser Ala Tyr Arg Phe Gly Leu Gly
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 Ser Val Ala Gly Ala Val Gly Ala Thr Ala Val Tyr Pro Ile Asp Leu
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 Val Lys Thr Arg Met Gln Asn Gln Arg Ser Thr Gly Ser Phe Val Gly
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<210> 6023

<211> 1014

<212> DNA

<213> Homo sapiens

<400> 6023

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<210> 6024

<211> 100

<212> PRT

<213> Homo sapiens

<400> 6024

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		20					25					30			
Pro	Gly	Leu	Pro	Ala	Phe	Ala	Glu	Val	Asp	Leu	Leu	Ser	Leu	Leu	Val
	35					40				45					
Pro	Ile	Lys	Ile	Ser	Ser	Thr	Pro	Pro	Ser	Gly	Ser	Arg	Leu	Asp	Pro
	50				55					60					
Gln	Ile	Ala	Ser	Ser	Ala	Phe	Pro	Gly	Leu	Gly	Ser	Leu	Gly	Gly	Gln
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Asp	Ser	Ser	Gly	Ser	Leu	Val	Gln	Arg	Ala	Ser	Cys	Glu	Leu	Glu	Ser

95

5204

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<212> PRT

<213> Homo sapiens

<400> 6026

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<212> PRT

<213> Homo sapiens

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<400> 6038

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 Pro Ala Leu Lys Ile Thr Arg Arg Tyr Ala Phe Ala His Ile Leu Thr
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 Val Tyr Val Thr Phe Ala Val Ser Phe Tyr Leu Val Ala Gly Ala Gly
 145 150 155 160
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 Thr Glu Glu Glu Glu Gln Ala Leu Glu Leu Leu Ser Glu Met Glu Glu
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 600
 gaagatggtt ctcaggtgaa gagaacgggt ggggctgagg atggagcccc tgcccccttc
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 720
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 840
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 900
 aacacctacg tgtatgctgt ggagaaaggg aagagctgac atgtgtacgt atatgtatat
 960
 gcaacacctg tgagaccccc attcaggtca aggaaaacca ttgcctgcac cccaagggcc
 1020
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<210> 6040
 <211> 312
 <212> PRT
 <213> Homo sapiens

<400> 6040
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 Gly Leu Leu Ala Val Leu Arg Ala Gly Pro Gly Pro Glu Ala Leu Leu

20 25 30
 Gln Val Trp Ala Ala Glu Ser Ala Leu Arg Gly Glu Pro Leu Trp Ala
 35 40 45
 Gln Asn Val Val Pro Glu Ala Glu Gly Glu Asp Asp Pro Ala Gly Glu
 50 55 60
 Ala Gln Ala Gly Arg Leu Pro Leu Leu Pro Cys Ala Arg Ala Tyr Val
 65 70 75 80
 Ser Pro Arg Ala Pro Phe Tyr Arg Pro Leu Ala Pro Glu Leu Arg Ala
 85 90 95
 Arg Gln Leu Glu Leu Gly Ala Glu His Ala Leu Leu Leu Asp Ala Ala
 100 105 110
 Gly Gln Val Phe Ser Trp Gly Gly Arg His Gly Gln Leu Gly His
 115 120 125
 Gly Thr Leu Glu Ala Glu Leu Glu Pro Arg Leu Leu Glu Ala Leu Gln
 130 135 140
 Gly Leu Val Met Ala Glu Val Ala Ala Gly Gly Trp His Ser Val Cys
 145 150 155 160
 Val Ser Glu Thr Gly Asp Ile Tyr Ile Trp Gly Trp Asn Glu Ser Gly
 165 170 175
 Gln Leu Ala Leu Pro Thr Arg Asn Leu Ala Glu Asp Gly Glu Thr Val
 180 185 190
 Ala Arg Glu Ala Thr Glu Leu Asn Glu Asp Gly Ser Gln Val Lys Arg
 195 200 205
 Thr Gly Gly Ala Glu Asp Gly Ala Pro Ala Pro Phe Ile Ala Val Gln
 210 215 220
 Pro Phe Pro Ala Leu Leu Asp Leu Pro Met Gly Ser Asp Ala Val Lys
 225 230 235 240
 Ala Ser Cys Gly Ser Arg His Thr Ala Val Val Thr Arg Thr Gly Glu
 245 250 255
 Leu Tyr Thr Trp Gly Trp Gly Lys Tyr Gly Gln Leu Gly His Glu Asp
 260 265 270
 Thr Thr Ser Leu Asp Arg Pro Arg Arg Val Glu Tyr Phe Val Asp Lys
 275 280 285
 Gln Leu Gln Val Lys Ala Val Thr Cys Gly Pro Trp Asn Thr Tyr Val
 290 295 300
 Tyr Ala Val Glu Lys Gly Lys Ser
 305 310

<210> 6041
 <211> 291
 <212> DNA
 <213> Homo sapiens

<400> 6041
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 120
 cggttgagc agcaaaagca gcagataatg gcagctttaa actcccagac tgccgtgcag
 180
 ttccagcagt atgcagccca acagtatcca gggaactacg aacagcagca aattctcatc
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 291

<210> 6042
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 6042
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 20 25 30
 Arg Arg Ile Glu Glu Glu Arg Leu Arg Leu Glu Gln Gln Lys Gln Gln
 35 40 45
 Ile Met Ala Ala Leu Asn Ser Gln Thr Ala Val Gln Phe Gln Gln Tyr
 50 55 60
 Ala Ala Gln Gln Tyr Pro Gly Asn Tyr Glu Gln Gln Gln Ile Leu Ile
 65 70 75 80
 Arg Gln Leu Gln Glu Gln His Tyr Gln Gln Tyr Met Gln Gln Leu Tyr
 85 90 95
 His

<210> 6043
 <211> 558
 <212> DNA
 <213> Homo sapiens

<400> 6043
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 180
 ctccctggccc agcacagggg cgggtgccacc cacattcggc ccgggtcttg cctaatacat
 240
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 300
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 360
 tctggccttt tcggcctgtg atgtgattcg agcgggtgcta tctttaacct cgggcagggg
 420
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 558

<210> 6044
 <211> 152
 <212> PRT
 <213> Homo sapiens

<400> 6044

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 20 25 30
 Lys Ile Ala Pro Leu Glu Ser His His Arg Pro Lys Arg Pro Asp Asp
 35 40 45
 Pro Pro Gly Thr Leu Asn Pro Cys Pro Glu Arg Gly Gly Ala Gly Val
 50 55 60
 Trp Ile Pro Ala Gly Ser Phe Gly Thr Gly Lys Asn Arg Gly Cys Ser
 65 70 75 80
 Asp Arg Val Phe Thr Lys Thr Cys Ile Arg Gln Asp Pro Gly Arg Met
 85 90 95
 Trp Val Ala Pro Pro Leu Cys Trp Ala Arg Arg Met Cys Pro His Arg
 100 105 110
 Ser Gln Ile Leu Phe Pro Gln Trp Val Val Gln Asp Thr Leu Asn Phe
 115 120 125
 Cys Met Asn Trp Asp Ile Gln Asn Ser Leu Glu Gln Pro Pro Pro Ser
 130 135 140
 Thr Leu Cys Leu Asp Ile Ser Tyr
 145 150

<210> 6045

<211> 1916

<212> DNA

<213> Homo sapiens

<400> 6045

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 180
 gctgtgtata tccttctgga ccaggctctc ctctctcaat ttctggatat gtgcatggat
 240
 ctgaaagtgc atcctgaaca ggaaaagtta atgacagtgc ggactatcac aggaaatata
 300
 tactatgcaa ggtcaggaac taagattatt gggaagggtc acgaaaagtt cacgttgatt
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 420
 agcagtaact tggtaattct gtctggccaa gtggttgaac actttgatct ggagttccga
 480
 atcctgtatg ccagtcctaa gccatcagc cccaaactcc tgtctcactt ccagagcagc
 540
 aacaagtttg atcacctcac caaccgaaaa ccacagtcca aggagctcac cctgggcaac
 600
 ctgctgcgga tgcggctggc taggctgtca agtactccca ggaaggcgga cctggaccca
 660
 gagatgcccg cagagggcaa ggcagagcgc aagccccatg actgtgagtc ctctactgtt
 720
 agtgaggaag actacttcag cagccacagg gacgagctcc agagcagaaa ggccattgac
 780

gctgccactc aaacagagcc aggagaggag atgccagggc tgagtgtgag tgaggtggga
 840
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 900
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 960
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 1020
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 1080
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 1260
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 1620
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 1680
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 1740
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 1916

<210> 6046

<211> 457

<212> PRT

<213> Homo sapiens

<400> 6046

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Pro	Tyr	Gly	Cys	Lys	Asp	Ala	Leu	Arg	Gln	Gln	Leu	Arg	Ser	Ala	Arg
		20					25					30			
Glu	Val	Ile	Ala	Val	Val	Met	Asp	Val	Phe	Thr	Asp	Ile	Asp	Ile	Phe
		35				40					45				
Arg	Asp	Leu	Gln	Glu	Ile	Cys	Arg	Lys	Gln	Gly	Val	Ala	Val	Tyr	Ile
	50				55					60					
Leu	Leu	Asp	Gln	Ala	Leu	Leu	Ser	Gln	Phe	Leu	Asp	Met	Cys	Met	Asp

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<210> 6047
<211> 773
<212> DNA
<213> Homo sapiens
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<400> 6047

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 gatgggaaat gggggatctc atcgcttgtg agtagaggag actttggggg gaaagtgatg
 180
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 240
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 300
 aatggtgcaa acagctcttc tccagtgtgg tcccgtgct gctggggggac ccagaggagg
 360
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 420
 tcttcacat gactcagtc ggcccttcgc cctgcagct gccgcctgag gatgcctacg
 480
 tcggcaatgc tgacatgac cagccggacc tgacgccact gcagccaagc ctggatgact
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 acttcccaga gccccccaac ttcagccccg tggttgactc cctcttcagc agtgggaccc
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<210> 6048

<211> 129

<212> PRT

<213> Homo sapiens

<400> 6048

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Arg	Ser	Cys	Arg	Pro	Pro	Gly	Ser	Ser	Ser	Gly	Ser	Pro	Ser	Ser	Thr
			20					25					30		
Gly	Thr	Thr	Leu	Glu	Lys	Ser	Cys	Leu	His	His	Cys	Ser	Gly	Gly	Gly
		35					40					45			
His	Leu	Pro	Ser	Ala	Cys	Leu	Gly	Ala	Arg	Arg	Ser	Ser	Ser	Leu	Leu
	50					55					60				
Gly	Tyr	Gly	Ser	Cys	Arg	Asp	Thr	Gln	Ser	Trp	Thr	Pro	Asp	Pro	Leu
65					70					75				80	
Pro	His	Pro	Pro	Ser	Leu	Ser	Pro	Gln	Ser	Leu	Leu	Tyr	Ser	Gln	Ala
				85					90					95	
Met	Arg	Ser	Pro	Ile	Ser	His	Gln	Glu	Leu	Thr	Arg	Pro	Leu	Gly	Lys
			100					105					110		
Glu	Ala	Ala	Arg	Arg	Arg	Cys	Gly	His	Thr	Val	Ala	Leu	Ser	Ala	Arg
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Asp

<210> 6049
<211> 479
<212> DNA
<213> Homo sapiens

<400> 6049
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180
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240
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300
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360
tcctctctcat cttcaccaac tgctgcaaca tctcaggagc agcaacttaa aaataagagt
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479

<210> 6050
<211> 159
<212> PRT
<213> Homo sapiens

<400> 6050
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20 25 30
Ala Lys Lys Arg Lys Leu Asn Ser Ser Ser Ser Ser Ser Asn Ser
35 40 45
Ser Asn Glu Arg Glu Asp Phe Asp Ser Thr Ser Ser Ser Ser Thr
50 55 60
Pro Pro Leu Gln Pro Arg Asp Ser Ala Ser Pro Ser Thr Ser Ser Phe
65 70 75 80
Cys Leu Gly Val Ser Val Ala Ala Ser Ser His Val Pro Ile Gln Lys
85 90 95
Lys Leu Arg Phe Glu Asp Thr Leu Glu Phe Val Gly Phe Asp Ala Lys
100 105 110
Met Ala Glu Glu Ser Ser Ser Ser Ser Ser Ser Ser Pro Thr Ala
115 120 125
Ala Thr Ser Gln Glu Gln Gln Leu Lys Asn Lys Ser Ile Leu Ile Ser
130 135 140
Ser Val Gly Ser Val His His Ala Asp Gly Leu Ala Glu Ser Ser
145 150 155

<210> 6051
<211> 2404
<212> DNA
<213> Homo sapiens

<400> 6051
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120
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180
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240
cgctaccagg aagtttgtag gcaacgtagc aagcgcacac agttagaaga gattcaacag
300
aaggtaatgc aggtggtgaa ctggctagaa gggcctggat cagaacaact aagagcccag
360
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420
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1140
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1200
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 1860
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 1920
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 1980
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 2400
 caac
 2404

<210> 6052
 <211> 518
 <212> PRT
 <213> Homo sapiens

<400> 6052
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 Thr Gly His Glu Leu Leu Ser Glu Leu Gln Gln Arg Arg Phe Asn Gly
 35 40 45
 Ser Asp Gly Gly Val Ser Trp Ser Pro Met Asp Asp Glu Leu Leu Ala
 50 55 60
 Gln Pro Gln Val Met Lys Leu Leu Asp Ser Leu Arg Glu Gln Tyr Thr
 65 70 75 80
 Arg Tyr Gln Glu Val Cys Arg Gln Arg Ser Lys Arg Thr Gln Leu Glu
 85 90 95
 Glu Ile Gln Gln Lys Val Met Gln Val Val Asn Trp Leu Glu Gly Pro
 100 105 110
 Gly Ser Glu Gln Leu Arg Ala Gln Trp Gly Ile Gly Asp Ser Ile Arg
 115 120 125
 Ala Ser Gln Ala Leu Gln Gln Lys His Glu Glu Ile Glu Ser Gln His

130		135		140	
Ser Glu Trp Phe Ala Val Tyr Val Glu Leu Asn Gln Gln Ile Ala Ala					
145		150		155	160
Leu Leu Asn Ala Gly Asp Glu Glu Asp Leu Val Glu Leu Lys Ser Leu					
	165		170		175
Gln Gln Gln Leu Ser Asp Val Cys Tyr Arg Gln Ala Ser Gln Leu Glu					
	180		185		190
Phe Arg Gln Asn Leu Leu Gln Ala Ala Leu Glu Phe His Gly Val Ala					
	195		200		205
Gln Asp Leu Ser Gln Gln Leu Asp Gly Leu Leu Gly Met Leu Cys Val					
	210		215		220
Asp Val Ala Pro Ala Asp Gly Ala Ser Ile Gln Gln Thr Leu Lys Leu					
225		230		235	240
Leu Glu Glu Lys Leu Lys Ser Val Asp Val Gly Leu Gln Gly Leu Arg					
	245		250		255
Glu Lys Gly Gln Gly Leu Leu Asp Gln Ile Ser Asn Gln Ala Ser Xaa					
	260		265		270
Gly Pro Met Glu Arg Met Xaa Thr Ile Glu Asn Lys Glu Asn Val Asp					
	275		280		285
His Ile Gln Gly Val Met Glu Asp Met Gln Leu Arg Lys Gln Arg Cys					
	290		295		300
Glu Asp Met Val Asp Val Arg Arg Leu Lys Met Leu Gln Met Val Gln					
305		310		315	320
Leu Phe Lys Cys Glu Glu Asp Ala Ala Lys Ala Val Glu Trp Leu Ser					
	325		330		335
Glu Leu Leu Asp Ala Leu Leu Lys Thr His Ile Arg Leu Gly Asp Asp					
	340		345		350
Ala Gln Glu Thr Lys Val Leu Leu Lys His Arg Lys Phe Val Asp					
	355		360		365
Val Ala Gln Ser Thr Tyr Asp Tyr Gly Arg Gln Leu Leu Gln Ala Thr					
	370		375		380
Val Val Leu Cys Gln Ser Leu Arg Cys Thr Ser Arg Ser Ser Gly Asp					
385		390		395	400
Thr Leu Pro Arg Leu Asn Arg Val Trp Lys Gln Phe Thr Ile Ala Ser					
	405		410		415
Glu Glu Arg Val His Arg Leu Glu Met Ala Ile Ala Phe His Ser Asn					
	420		425		430
Ala Glu Lys Ile Leu Gln Asp Cys Pro Glu Glu Pro Glu Ala Ile Asn					
	435		440		445
Asp Glu Glu Gln Phe Asp Glu Ile Glu Ala Val Gly Lys Ser Leu Leu					
	450		455		460
Asp Arg Leu Thr Val Pro Val Val Tyr Pro Asp Gly Thr Glu Gln Tyr					
465		470		475	480
Phe Gly Ser Pro Ser Asp Met Ala Ser Thr Ala Glu Asn Ile Arg Asp					
	485		490		495
Arg Met Lys Leu Val Asn Leu Lys Arg Gln Gln Leu Arg His Pro Glu					
	500		505		510
Met Val Thr Thr Glu Ser					
	515				

<210> 6053

<211> 3257

<212> DNA

<213> Homo sapiens

<400> 6053
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<211> 382

<212> PRT

<213> Homo sapiens

<400> 6054

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<211> 3924

<212> DNA

<213> Homo sapiens

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<211> 500

<212> PRT

<213> Homo sapiens

<400> 6058

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Lys Pro Ala Ala Pro Pro Thr Lys Pro Thr Gln Trp Lys Ser Gln Thr
          245          250          255
Lys Glu Asn Lys Val Gly Thr Ser Phe Pro His Glu Ser Thr Phe Gly
          260          265          270
Val Gly Asn Phe Asn Ala Phe Lys Ser Thr Ala Lys Asn Phe Ser Pro
          275          280          285
Ser Thr Asn Ser Val Lys Glu Cys Asn Arg Ser Asn Ser Ser Ser Pro
          290          295          300
Val Asp Lys Leu Asn Gln Gln Pro Arg Leu Thr Lys Leu Thr Arg Met
305          310          315          320
Arg Thr Asp Lys Lys Ser Glu Phe Leu Lys Ala Leu Lys Arg Asp Arg
          325          330          335
Val Glu Glu Glu His Glu Asp Glu Ser Arg Ala Gly Ser Glu Lys Asp
          340          345          350
Asp Asp Ser Phe Asn Leu His Asn Ser Asn Ser Thr His Gln Glu Arg
          355          360          365
Asp Ile Asn Arg Asn Phe Asp Glu Asn Glu Ile Pro Gln Glu Asn Gly
          370          375          380
Asn Ala Ser Val Ile Ser Gln Gln Ile Ile Arg Ser Ser Thr Phe Pro
385          390          395          400
Gln Thr Asp Val Leu Ser Ser Ser Leu Glu Ala Glu His Arg Leu Leu
          405          410          415
Lys Glu Met Gly Trp Gln Glu Asp Ser Glu Asn Asp Glu Thr Cys Ala

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Pro	Leu	Thr	Glu	Asp	Glu	Met	Arg	Glu	Phe	Gln	Val	Ile	Ser	Glu	Gln
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Leu	Gln	Lys	Asn	Gly	Leu	Arg	Lys	Asn	Gly	Ile	Leu	Lys	Asn	Gly	Leu
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Ile	Cys	Asp	Phe	Lys	Phe	Gly	Pro	Trp	Lys	Asn	Ser	Thr	Phe	Lys	Pro
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 <213> Homo sapiens

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 1320
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 1442

<210> 6060

<211> 313

<212> PRT

<213> Homo sapiens

<400> 6060

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			20					25					30		
Ile	Ser	Tyr	Thr	Ile	Thr	Ile	Phe	Gly	Asn	Val	Ser	Ile	Met	Met	Val
		35					40					45			
Cys	Ile	Leu	Asp	Pro	Lys	Leu	His	Thr	Pro	Met	Tyr	Phe	Phe	Leu	Thr
	50					55				60					
Asn	Leu	Ser	Ile	Leu	Asp	Leu	Cys	Tyr	Thr	Thr	Thr	Thr	Val	Pro	His
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Met	Leu	Val	Asn	Ile	Gly	Cys	Asn	Lys	Lys	Thr	Ile	Ser	Tyr	Ala	Gly
			85					90						95	
Cys	Val	Ala	His	Leu	Ile	Ile	Phe	Leu	Ala	Leu	Gly	Ala	Thr	Glu	Cys
		100					105					110			
Leu	Leu	Leu	Ala	Val	Met	Ser	Phe	Asp	Arg	Tyr	Val	Ala	Val	Cys	Arg
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Pro	Leu	His	Tyr	Val	Val	Ile	Met	Asn	Tyr	Trp	Phe	Cys	Leu	Arg	Met
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Lys	Pro	Ile	Glu	Ala	Glu	Leu	Phe	Phe	Phe	Ser	Val	Leu	Ile	Leu	Leu
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Ile	Pro	Val	Thr	Leu	Ile	Leu	Ile	Ser	Tyr	Gly	Phe	Ile	Ala	Gln	Ala
	210				215					220					
Val	Leu	Lys	Ile	Arg	Ser	Ala	Glu	Gly	Arg	Gln	Lys	Ala	Phe	Gly	Thr
225				230					235					240	
Cys	Gly	Ser	His	Met	Ile	Val	Val	Ser	Leu	Phe	Tyr	Gly	Thr	Ala	Ile
			245					250					255		
Tyr	Met	Tyr	Leu	Gln	Pro	Pro	Ser	Ser	Thr	Ser	Lys	Asp	Trp	Gly	Lys

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Met	Val	Ser	Leu	Phe	Tyr	Gly	Ile	Ile	Thr	Ser	Met	Leu	Asn	Ser	Leu
	275						280					285			
Ile	Tyr	Ser	Leu	Arg	Asn	Lys	Asp	Met	Lys	Glu	Ala	Phe	Lys	Arg	Leu
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 <212> DNA
 <213> Homo sapiens

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<210> 6062

<211> 226

<212> PRT

<213> Homo sapiens

<400> 6062

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 35 40 45
 Leu Ile Gly Ala Met Glu Thr Gln Ser Glu Pro Ser Glu Leu Glu Leu
 50 55 60
 Asp Asp Val Val Ile Thr Asn Pro His Ile Glu Ala Ile Leu Glu Asn
 65 70 75 80
 Glu Asp Trp Ile Glu Asp Ala Ser Gly Leu Met Ser His Cys Ile Ala
 85 90 95
 Ile Leu Lys Ile Cys His Thr Leu Thr Glu Lys Leu Val Ala Met Thr
 100 105 110
 Met Gly Ser Gly Ala Lys Met Lys Thr Ser Ala Ser Val Ser Asp Ile
 115 120 125
 Ile Val Val Ala Lys Arg Ile Ser Pro Arg Val Asp Asp Val Val Lys
 130 135 140
 Ser Met Tyr Pro Pro Leu Asp Pro Lys Leu Leu Asp Ala Arg Thr Thr
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 Cys His Leu Thr Gly Gly Leu Asp Trp Ile Asp Gln Ser Leu Ser Ala
 180 185 190
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<210> 6063

<211> 2286

<212> DNA

<213> Homo sapiens

<400> 6063

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<211> 233

<212> PRT

<213> Homo sapiens

<400> 6064

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			20					25					30		
Phe	Leu	His	Pro	Asp	Leu	Gly	Val	Gly	Gly	Ala	Glu	Arg	Leu	Val	Leu
		35				40						45			
Asp	Ala	Ala	Leu	Ala	Leu	Gln	Ala	Arg	Gly	Cys	Ser	Val	Lys	Ile	Trp
		50				55					60				
Thr	Ala	His	Tyr	Asp	Pro	Gly	His	Cys	Phe	Ala	Glu	Ser	Arg	Glu	Leu
65					70					75				80	
Pro	Val	Arg	Cys	Ala	Gly	Asp	Trp	Leu	Pro	Arg	Gly	Leu	Gly	Trp	Gly
			85					90						95	
Gly	Arg	Gly	Ala	Ala	Val	Cys	Ala	Tyr	Val	Arg	Met	Val	Phe	Leu	Ala
			100					105					110		
Leu	Tyr	Val	Leu	Phe	Leu	Ala	Asp	Glu	Glu	Phe	Asp	Val	Val	Val	Cys
		115					120					125			
Asp	Gln	Val	Ser	Ala	Cys	Ile	Pro	Val	Phe	Arg	Leu	Ala	Arg	Arg	Arg
		130				135					140				
Lys	Lys	Ile	Leu	Phe	Tyr	Cys	His	Phe	Pro	Asp	Leu	Leu	Leu	Thr	Lys

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Phe Thr Ala Ala Val Phe Lys Glu Thr Phe Lys Ser Leu Ser His Ile
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<210> 6065

<211> 2084

<212> DNA

<213> Homo sapiens

<400> 6065

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<210> 6066

<211> 80

<212> PRT

<213> Homo sapiens

<400> 6066

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		20						25					30		
Ala	Ile	Asp	Lys	Pro	Thr	Tyr	Ala	Thr	Lys	Trp	Pro	Ile	Arg	His	Gly
		35					40					45			
Ile	Ile	Glu	Asp	Trp	Asp	Leu	Met	Glu	Arg	Phe	Met	Glu	Gln	Val	Val
	50					55				60					
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<210> 6067

<211> 406

<212> DNA

<213> Homo sapiens

<400> 6067

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<210> 6068

<211> 117

<212> PRT

<213> Homo sapiens

<400> 6068

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<211> 456

<212> DNA

<213> Homo sapiens

<400> 6069

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Gln His Leu Arg Lys Gly Lys Ala Thr Arg Val Gly Gly Glu Pro Gly
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<212> DNA

<213> Homo sapiens

<400> 6071

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<212> PRT

<213> Homo sapiens

<400> 6072

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Pro	Thr	Trp	Arg	Asn	Pro	Ile	Ser	Thr	Lys	Asn	Thr	Lys	Ile	Asn	Lys
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<211> 387

<212> DNA

<213> Homo sapiens

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<211> 601

<212> PRT

<213> Homo sapiens

<400> 6076

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5260

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 2093

<210> 6078

<211> 213

<212> PRT

<213> Homo sapiens

<400> 6078

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			20					25					30		
Ser	Gly	Arg	Glu	Gly	Ala	Ser	Gly	Pro	Gly	Val	Gly	Pro	His	Ile	Tyr
			35				40					45			
Val	Arg	Glu	Ala	Glu	Asp	Arg	Glu	Leu	Val	Thr	Met	Ala	Gly	Pro	Gln
			50			55					60				
Pro	Leu	Ala	Leu	Gln	Leu	Glu	Gln	Leu	Leu	Asn	Pro	Arg	Pro	Ser	Glu
65				70						75				80	
Ala	Asp	Pro	Glu	Ala	Asp	Pro	Glu	Glu	Ala	Thr	Ala	Ala	Arg	Val	Ile
				85					90					95	
Asp	Arg	Phe	Asp	Glu	Gly	Glu	Asp	Gly	Glu	Gly	Asp	Phe	Leu	Val	Val
			100					105					110		
Gly	Ser	Ile	Arg	Lys	Leu	Ala	Ser	Ala	Ser	Leu	Leu	Asp	Thr	Asp	Lys
			115				120					125			
Arg	Tyr	Cys	Gly	Lys	Thr	Thr	Ser	Arg	Lys	Ala	Trp	Asn	Glu	Asp	His
			130				135				140				
Trp	Glu	Gln	Thr	Leu	Pro	Gly	Ser	Ser	Asp	Glu	Glu	Ile	Ser	Asp	Glu
145					150				155					160	
Glu	Gly	Ser	Gly	Asp	Glu	Asp	Ser	Glu	Gly	Leu	Gly	Leu	Glu	Glu	Tyr
				165					170					175	
Asp	Glu	Asp	Asp	Leu	Gly	Ala	Ala	Glu	Glu	Gln	Glu	Cys	Gly	Asp	Gln

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 Gly Glu Gln Glu Asp Glu Lys Pro Leu Cys Lys Asn Thr Gly Leu Gln
 195 200 205
 Cys Pro Glu Tyr Gln
 210

<210> 6079
 <211> 651
 <212> DNA
 <213> Homo sapiens

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 120
 catgcgcagc ggggcccgtg gtgtacgcgg cgcagcgcgg cagtcctgat ggcccggcat
 180
 gggttaccgc tgcctgccct gctgtcgctc ctggtcggcg cgtggctcaa gctaggaaat
 240
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 360
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 420
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 480
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 540
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<210> 6080
 <211> 162
 <212> PRT
 <213> Homo sapiens

<400> 6080
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 Gln Leu Gln Gly Gly Arg Phe Leu Met Gly Thr Asn Ser Pro Asp Ser
 35 40 45
 Arg Asp Gly Glu Gly Pro Val Arg Glu Ala Thr Val Lys Pro Phe Ala
 50 55 60
 Ile Asp Ile Phe Pro Val Thr Asn Lys Asp Phe Arg Asp Phe Val Arg
 65 70 75 80
 Glu Lys Lys Tyr Arg Thr Glu Ala Glu Met Phe Gly Trp Ser Phe Val
 85 90 95
 Phe Glu Asp Phe Val Ser Asp Glu Leu Arg Asn Lys Ala Thr Gln Pro

	100		105		110										
Met	Lys	Ser	Val	Leu	Trp	Trp	Leu	Pro	Val	Glu	Lys	Ala	Phe	Trp	Arg
	115						120					125			
Gln	Pro	Ala	Gly	Pro	Gly	Ser	Gly	Ile	Arg	Glu	Arg	Leu	Glu	His	Pro
	130					135					140				
Val	Leu	His	Val	Ser	Trp	Asn	Asp	Ala	Arg	Ala	Tyr	Cys	Ala	Trp	Arg
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Gly	Lys														

<210> 6081

<211> 655

<212> DNA

<213> Homo sapiens

<400> 6081

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120
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180
cagaaattga ctgaaattct caatttaa at ggagaagtag cttgccagga ctcaagccat
240
cctgccaaac acaggaacac atctgcagtc ctaggctgct tggccgagaa actagcaggt
300
cctgcaagta taggtttact tagcccagga atactggaat acttgctaca gtgtctgaag
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ttacagtccc accccacagt catgcttttt gcacttatcg cactggaaaa gtttgcacag
420
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480
gagtcctggg ctaatgatcc tgattatctg aaacgtcaag ttggtttctg tgcccagtgg
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655

<210> 6082

<211> 218

<212> PRT

<213> Homo sapiens

<400> 6082

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Ala	Glu	Thr	Asp	Glu	Gly	Trp	Leu	Asp	Val	Val	Gln	Ser	Leu	Ile	Arg
		20					25					30			
Val	Ile	Pro	Leu	Glu	Asp	Pro	Leu	Gly	Pro	Ala	Val	Ile	Thr	Leu	Leu
		35				40					45				
Leu	Asp	Glu	Cys	Pro	Leu	Pro	Thr	Lys	Asp	Ala	Leu	Gln	Lys	Leu	Thr
	50				55					60					
Glu	Ile	Leu	Asn	Leu	Asn	Gly	Glu	Val	Ala	Cys	Gln	Asp	Ser	Ser	His

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65          70          75          80
Pro Ala Lys His Arg Asn Thr Ser Ala Val Leu Gly Cys Leu Ala Glu
          85          90          95
Lys Leu Ala Gly Pro Ala Ser Ile Gly Leu Leu Ser Pro Gly Ile Leu
          100          105          110
Glu Tyr Leu Leu Gln Cys Leu Lys Leu Gln Ser His Pro Thr Val Met
          115          120          125
Leu Phe Ala Leu Ile Ala Leu Glu Lys Phe Ala Gln Thr Ser Glu Asn
          130          135          140
Lys Leu Thr Ile Ser Glu Ser Ser Ile Ser Asp Arg Leu Val Thr Leu
          145          150          155          160
Glu Ser Trp Ala Asn Asp Pro Asp Tyr Leu Lys Arg Gln Val Gly Phe
          165          170          175
Cys Ala Gln Trp Ser Leu Asp Asn Leu Phe Leu Lys Glu Gly Arg Gln
          180          185          190
Leu Thr Tyr Glu Lys Val Asn Leu Ser Ser Ile Arg Ala Met Leu Asn
          195          200          205
Ser Asn Asp Val Ser Glu Tyr Leu Lys Ile
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<210> 6083
 <211> 358
 <212> DNA
 <213> Homo sapiens

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<400> 6083
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120
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180
gtagaagaaa caaagcttttc aaaagaaaat cagacaagag caaaagaatc tgattttttca
240
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358

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<210> 6084
 <211> 101
 <212> PRT
 <213> Homo sapiens

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<400> 6084
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20          25          30
Leu Ile Val Glu Gly His Leu Thr Lys Ala Val Glu Glu Thr Lys Leu
35          40          45
Ser Lys Glu Asn Gln Thr Arg Ala Lys Glu Ser Asp Phe Ser Asp Thr
50          55          60
Leu Ser Pro Ser Lys Glu Lys Ser Ser Asp Asp Thr Thr Asp Ala Gln

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<400> 6085					
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120					
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180					
cacatagagt	cattactaaa	tgggggggatt	accatcactg	tgaacttctg	gtataagggg
240					
gctcccaccc	ctaagagaat	tgaatatcct	ctcaaagctc	atcagaaagt	ggccataatg
300					
agaaacattg	agaagatgct	tggagaggcc	ttggggaacc	cacaagaggt	ggggcccttg
360					
ttgaacacaa	tgatcaaggg	ccgatacaac	tagcctgcca	ggggtcaagg	cctcctgcca
420					
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480					
tattgcacgc	tgcacttaat	ggactggact	cttgccatgg	cccaggagtc	aggtgttttg
540					
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600					
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660					
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720					
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780					
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1080					
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<210> 6086

<211> 84

<212> PRT

<213> Homo sapiens

<400> 6086

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Arg	Gly	Ala	Ser	Leu	Cys	Val	Phe	Val	Cys	Val	Cys	Leu	Cys	Val	Arg
			20				25						30		
Ile	Thr	Leu	Gly	Val	Gln	Ala	Ser	Gly	Cys	Val	Cys	Val	Cys	Ala	Cys
	35						40				45				
Val	Cys	Val	Cys	Val	Ser	Val	Cys	Val	Cys	Val	Cys	Val	His	Thr	Gly
	50				55				60						
Gln	Pro	Pro	Tyr	Leu	Pro	Arg	Phe	Ser	Thr	Ala	Tyr	Leu	Phe	Gln	Trp
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Asp	Ser	Thr	Val												

<210> 6087
<211> 1506
<212> DNA
<213> Homo sapiens

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<210> 6088
 <211> 326
 <212> PRT
 <213> Homo sapiens

<400> 6088
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 35 40 45
 Ala Glu Thr His Phe Gly Phe Glu Thr Val Ser Glu Glu Glu Lys Gly
 50 55 60
 Gly Lys Val Tyr Gln Val Phe Glu Ser Val Ala Lys Lys Tyr Asp Val
 65 70 75 80
 Met Asn Asp Met Met Ser Leu Gly Ile His Arg Val Trp Lys Asp Leu
 85 90 95
 Leu Leu Trp Lys Met His Pro Leu Pro Gly Thr Gln Leu Leu Asp Met
 100 105 110
 Ala Gly Gly Thr Gly Asp Ile Ala Phe Arg Phe Leu Asn Tyr Val Gln
 115 120 125
 Ser Gln His Gln Arg Lys Gln Lys Arg Gln Leu Arg Ala Gln Gln Asn
 130 135 140
 Leu Ser Trp Glu Glu Ile Ala Lys Glu Tyr Gln Asn Glu Glu Asp Ser
 145 150 155 160
 Leu Gly Gly Ser Arg Val Val Val Cys Asp Ile Asn Lys Glu Met Leu
 165 170 175
 Lys Val Gly Lys Gln Lys Ala Leu Ala Gln Gly Tyr Arg Ala Gly Leu
 180 185 190
 Ala Trp Val Leu Gly Asp Ala Glu Leu Pro Phe Asp Asp Asp Lys
 195 200 205
 Phe Asp Ile Tyr Thr Ile Ala Phe Gly Ile Arg Asn Val Thr His Ile
 210 215 220
 Asp Gln Ala Leu Gln Glu Ala His Arg Val Leu Lys Pro Gly Gly Arg
 225 230 235 240
 Phe Leu Cys Leu Glu Phe Ser Gln Val Asn Asn Pro Leu Ile Ser Arg
 245 250 255
 Leu Tyr Asp Leu Tyr Ser Phe Gln Val Ile Pro Val Leu Gly Glu Val
 260 265 270
 Ile Ala Gly Asp Trp Lys Ser Tyr Gln Tyr Leu Val Glu Ser Ile Arg
 275 280 285
 Arg Phe Pro Ser Gln Glu Glu Phe Lys Asp Met Ile Glu Asp Ala Gly
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325

<210> 6089

<211> 4211

<212> DNA

<213> Homo sapiens

<400> 6089

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1380

5269

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<210> 6090

<211> 839

<212> PRT

<213> Homo sapiens

<400> 6090

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 Ser Pro His Pro Leu Thr Val Asp Thr Gln Pro Glu Gln Ala Pro Gln
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 Thr Gly Ser Gln Lys Leu Val Lys Ile Glu Glu Val Ala Asp Val Ala
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 Ser Leu Tyr Arg Asp Asp Arg Lys Glu Asn Tyr Gly Ser Ile Thr Ser
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Lys Gln Gly Ile Pro Met Lys Glu Ile Leu Gly Gln Pro Ser Ser Lys
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545          550          555          560
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Phe Arg Cys Glu Glu Cys Gly Lys Ser Tyr Asn Gln Arg Val His Leu
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625          630          635          640
Gly Phe Gly Arg Arg Ser His Leu Ala Gly His Leu Arg Leu His Ser
          645          650          655
Arg Glu Lys Ser His Gln Cys Arg Glu Cys Gly Glu Ile Phe Phe Gln
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Tyr Val Ser Leu Ile Glu His Gln Val Leu His Met Gly Gln Lys Asn
          675          680          685
Glu Lys Asn Gly Ile Cys Glu Glu Ala Tyr Ser Trp Asn Leu Thr Val
690          695          700
Ile Glu Asp Lys Lys Ile Glu Leu Gln Glu Gln Pro Tyr Gln Cys Asp
705          710          715          720
Ile Cys Gly Lys Ala Phe Gly Tyr Ser Ser Asp Leu Ile Gln His Tyr
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755          760          765
Ser Thr Lys Ser His Gln Cys His Glu Cys Gly Arg Gly Phe Thr Leu
770          775          780
Lys Ser His Leu Asn Gln His Gln Arg Ile His Thr Gly Glu Lys Pro
785          790          795          800
Phe Gln Cys Lys Glu Cys Gly Met Asn Phe Ser Trp Ser Cys Ser Leu
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Phe Lys His Leu Arg Ser His Glu Arg Thr Asp Pro Ile Asn Thr Leu
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<210> 6091

<211> 1336

<212> DNA

<213> Homo sapiens

<400> 6091

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<210> 6092

<211> 118

<212> PRT

<213> Homo sapiens

<400> 6092

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      35             40             45
Val Thr Arg Gln Val Pro Ser Pro Pro Ser Gly Phe Arg Leu Pro Ser
      50             55             60
Ser Arg His Glu Gly Pro Ser Pro Pro Arg Asp Leu Gly Thr Ser Gly
      65             70             75             80
Pro Ser Arg Ala Ala Ser His Lys Pro Ser Asn Glu Gln Arg Asp Ala
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<210> 6093

<211> 1998

<212> DNA

<213> Homo sapiens

<400> 6093

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960

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<210> 6094

<211> 136

<212> PRT

<213> Homo sapiens

<400> 6094

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		20					25						30		
Thr	Gly	Pro	Val	Ser	Gln	Ser	Phe	Leu	Gln	Met	Leu	Ile	Gly	Val	Cys
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Ser	Cys	Asn	Phe	Leu	Gly	Glu	Glu	Thr	Phe	Ser	Ser	Phe	Pro	Phe	Leu
65				70					75				80		
Val	His	Pro	Cys	Thr	Leu	Val	Leu	Ser	Gln	Pro	Leu	Pro	His	Ile	Val

				85					90					95					
Pro	Asp	Ser	Arg	Gly	Thr	Ser	Ser	Leu	His	Arg	Ala	Ala	Ala	Ala	Gly				
				100				105						110					
Leu	Arg	Ala	Glu	Pro	Val	Gly	Ala	Glu	Ala	Leu	Ala	Pro	Glu	Val	Gln				
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<210> 6095

<211> 441

<212> DNA

<213> Homo sapiens

<400> 6095

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<210> 6096

<211> 97

<212> PRT

<213> Homo sapiens

<400> 6096

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			20					25					30						
Lys	Lys	Trp	Asn	Ala	Val	Ala	Met	Trp	Ser	Trp	Asp	Val	Glu	Cys	Asp				
		35				40					45								
Thr	Cys	Ala	Ile	Cys	Arg	Val	Gln	Val	Met	Val	Val	Trp	Gly	Glu	Cys				
	50				55				60										
Asn	His	Ser	Phe	His	Asn	Cys	Cys	Met	Ser	Leu	Trp	Val	Lys	Gln	Asn				
65					70				75				80						
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<210> 6097

<211> 2404

<212> DNA

<213> Homo sapiens

<400> 6097

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<211> 631

<212> PRT

<213> Homo sapiens

<400> 6098

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			20				25						30		
Arg	Ser	Gly	Asp	Val	Ile	Glu	Tyr	Leu	Leu	Lys	Asn	Gln	Trp	Phe	Val
		35					40					45			
Arg	Cys	Gln	Glu	Met	Gly	Ala	Arg	Ala	Ala	Lys	Ala	Val	Glu	Ser	Gly
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65					70					75				80	
Phe	Ser	His	Ile	Gly	Asp	Trp	Cys	Val	Ser	Arg	Gln	Leu	Trp	Trp	Gly
			85						90					95	
His	Gln	Ile	Pro	Ala	Tyr	Leu	Val	Xaa	Xaa	Gly	Pro	Cys	Ala	Xaa	Gly
			100				105					110			
Glu	Glu	Xaa	Thr	Cys	Trp	Val	Val	Gly	Arg	Ser	Gly	Ala	Glu	Ala	Arg

115 120 125
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<210> 6099

<211> 3957

<212> DNA

<213> Homo sapiens

<400> 6099

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<211> 1102

<212> PRT

<213> Homo sapiens

<400> 6100

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 Lys Ile Ala Asp Phe Gly Phe Ser Asn Leu Phe Thr Pro Gly Gln Leu
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 Leu Lys Thr Trp Cys Gly Ser Pro Pro Tyr Ala Ala Pro Glu Leu Phe
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 225 230 235 240
 Val Val Leu Tyr Val Leu Val Cys Gly Ala Leu Pro Phe Asp Gly Ser
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5285

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<211> 1447

<212> DNA

<213> Homo sapiens

<400> 6101

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<210> 6103
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<212> DNA

<213> Homo sapiens

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<211> 71

<212> PRT

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

<400> 6105

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<210> 6106

<211> 405

<212> PRT

<213> Homo sapiens

<400> 6106
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Gln Gly Ser Lys Glu Lys Gly Arg Gly Ser Trp Gly Gly Arg His His
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Arg Asp Val Leu Asp Leu Gly Cys Asn Val Gly His Leu Thr Leu Ser
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Ile Ala Cys Lys Trp Gly Pro Ser Arg Met Val Gly Leu Asp Ile Asp
180 185 190
Ser Arg Leu Ile His Ser Ala Arg Gln Asn Ile Arg His Tyr Leu Ser
195 200 205
Glu Glu Leu Arg Leu Pro Pro Gln Thr Leu Glu Gly Asp Pro Gly Ala
210 215 220
Glu Gly Glu Glu Gly Thr Thr Thr Val Arg Lys Arg Ser Cys Phe Pro
225 230 235 240
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340 345 350
Tyr Tyr Arg Ile Gln Leu Lys Pro Glu Gln Phe Ser Ser Tyr Leu Thr
355 360 365
Ser Pro Asp Val Gly Phe Ser Ser Tyr Glu Leu Val Ala Thr Pro His
370 375 380
Asn Thr Ser Lys Gly Phe Gln Arg Pro Val Tyr Leu Phe His Lys Ala
385 390 395 400
Arg Ser Pro Ser His
405

<210> 6107
 <211> 896
 <212> DNA
 <213> Homo sapiens

<400> 6107
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 180
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 240
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 420
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 660
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 720
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 780
 gtctttcttt gccgcagttt cttttcctgt aaatcatggt taatgacatt aaccttctta
 840
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 896

<210> 6108
 <211> 124
 <212> PRT
 <213> Homo sapiens

<400> 6108
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 35 40 45
 Leu Gly Ser Thr Pro Pro Pro Ala Pro Ala Ser Pro Val Glu Ser Pro
 50 55 60
 Arg Pro Ser Pro Ala Ser Ser Ala Phe Ser Ser Leu Pro Ser Asp Gly
 65 70 75 80
 Trp Gly Ser Ser Val Gly Ser Gly Leu Pro Trp Pro Ala Thr Arg Trp

				85					90					95		
Ser	Thr	Cys	Pro	Arg	Trp	Arg	Thr	Asp	Val	Ser	Pro	Ala	Asp	Thr	Ile	
			100					105					110			
Ala	Pro	Arg	Ser	Trp	Leu	Leu	Pro	Leu	Ser	Ala	Thr					
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<210> 6109
<211> 2087
<212> DNA
<213> Homo sapiens
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<400> 6109
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1260

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 1380
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 1620
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 1920
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 2040
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 2087

<210> 6110

<211> 323

<212> PRT

<213> Homo sapiens

<400> 6110

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		20						25					30		
Pro	Gly	Ala	Ala	Ala	Gly	Leu	Thr	Leu	Leu	Cys	Ser	Leu	Val	Pro	Ile
		35						40					45		
Cys	Val	Leu	Arg	Arg	Pro	Gly	Ala	Asn	His	Glu	Gly	Ser	Ala	Ser	Arg
		50				55					60				
Gln	Lys	Ala	Leu	Ser	Leu	Val	Ser	Cys	Phe	Ala	Gly	Gly	Val	Phe	Leu
					70					75					80
Ala	Thr	Cys	Leu	Leu	Asp	Leu	Leu	Pro	Asp	Tyr	Leu	Ala	Ala	Ile	Asp
				85					90					95	
Glu	Ala	Leu	Ala	Ala	Leu	His	Val	Thr	Leu	Gln	Phe	Pro	Leu	Gln	Glu
			100					105					110		
Phe	Ile	Leu	Ala	Met	Gly	Phe	Phe	Leu	Val	Leu	Val	Met	Glu	Gln	Ile
		115					120					125			
Thr	Leu	Ala	Tyr	Lys	Glu	Gln	Ser	Gly	Pro	Ser	Pro	Leu	Glu	Glu	Thr
		130				135					140				
Arg	Ala	Leu	Leu	Gly	Thr	Val	Asn	Gly	Gly	Pro	Gln	His	Trp	His	Asp

145		150		155		160
Gly	Pro	Gly	Val	Pro	Gln	Ala
		165		170		175
Leu	Arg	Ala	Cys	Val	Leu	Val
		180		185		190
Glu	Gly	Leu	Ala	Val	Gly	Leu
		195		200		205
Leu	Cys	Leu	Ala	Leu	Leu	His
		210		215		220
Ser	Leu	Arg	Leu	Leu	Gln	Ser
		225		230		235
Cys	Gly	Ile	Leu	Phe	Ser	Cys
		245		250		255
Ala	Ala	Leu	Ala	Glu	Ser	Ala
		260		265		270
Val	Leu	Glu	Gly	Met	Ala	Ala
		275		280		285
Glu	Ile	Leu	Pro	Gln	Glu	Leu
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Val	Ile	Leu	Leu	Leu	Ala	Gly
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Ile	Gln	Ile				

<210> 6111

<211> 1706

<212> DNA

<213> Homo sapiens

<400> 6111

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180
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720

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<210> 6112

<211> 110

<212> PRT

<213> Homo sapiens

<400> 6112

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Val	Ala	Gln	Ala	Gly	Val	Xaa	Trp	His	Ser	Leu	Gly	Ser	Leu	Gln	Pro
			20					25					30		
Pro	Leu	Pro	Gly	Phe	Lys	Gln	Phe	Ser	Cys	Arg	Ser	Leu	Pro	Ser	Ser
		35					40					45			
Trp	Asp	Tyr	Arg	His	Ala	Pro	Pro	Arg	Gln	Ala	Asn	Phe	Cys	Ile	Phe
	50					55					60				
Ser	Arg	Asp	Gly	Val	Ser	Pro	Cys	Trp	Pro	Gly	Trp	Ser	Gln	Thr	Pro
65					70					75				80	
Asp	Leu	Arg	Arg	Ser	Thr	His	Leu	Ser	Val	Pro	Lys	Cys	Trp	Asp	Tyr
				85					90					95	
Arg	Arg	Glu	Pro	Pro	His	Leu	Ala	Tyr	Glu	Trp	Ser	Phe	Asn		

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105

110

<210> 6113
<211> 1095
<212> DNA
<213> Homo sapiens

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420
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480
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900
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960
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1080
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1095

<210> 6114
<211> 87
<212> PRT
<213> Homo sapiens

<400> 6114
Met Cys Phe Phe Val Glu Leu Lys Lys Ala Ser Lys Arg Met Thr Cys

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His Lys Arg Tyr Lys Ile Gln Lys Lys Val Arg Glu His His Arg Lys
      20           25           30
Leu Arg Lys Glu Ala Lys Lys Arg Gly His Lys Lys Pro Arg Lys Asp
      35           40           45
Pro Gly Val Pro Asn Ser Ala Pro Phe Lys Glu Ala Leu Leu Glu Glu
      50           55           60
Ala Glu Leu Arg Lys Gln Arg Leu Glu Glu Leu Lys Gln Gln Gln Lys
      65           70           75           80
Leu Asp Arg Gln Lys Glu Leu
      85

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<210> 6115

<211> 411

<212> DNA

<213> Homo sapiens

<400> 6115

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120
actgtggcgt cccagggcgg tggagggagc aacttcgggg gcacgtcctc gtaaatcccg
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<210> 6116

<211> 129

<212> PRT

<213> Homo sapiens

<400> 6116

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Leu Pro Ile Ser Ser Leu Glu Thr Arg His Ala Gln Asn Pro Gly Gly
      20           25           30
Gln Val Lys Thr Pro Thr Leu Gln Val Arg Gly Ala Ser Ala Leu Ala
      35           40           45
Pro Gln Phe Pro Gln Arg Asn Arg Leu Leu Ala Ser Arg Val Gly Tyr
      50           55           60
Arg Val Ser Val Leu His Gly Ile Tyr Glu Asp Val Pro Pro Lys Leu
      65           70           75           80
Leu Pro Pro Pro Pro Trp Asp Ala Thr Val Arg Pro Ala Asp Glu Phe
      85           90           95
Leu Pro Gln Arg Pro Arg Glu Gly Gly Leu Arg Ala Ala Ala Ala Ala
      100          105          110
Thr Gly Gly Glu Ala Ser Ala Gly Asn Leu Gly Pro Gly Gly Ala Arg

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Arg 115 120 125

<210> 6117
 <211> 962
 <212> DNA
 <213> Homo sapiens

<400> 6117
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 120
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 360
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 420
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 480
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 660
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 780
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 840
 aatacgtatt tttggcaggg agagggaaac gtccatgaaa tctttatgtg atataaggat
 900
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 960
 aa
 962

<210> 6118
 <211> 113
 <212> PRT
 <213> Homo sapiens

<400> 6118
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 1 5 10 15
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			20					25					30				
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		35					40					45					
Thr	Cys	Ala	Ile	Cys	Arg	Val	Gln	Val	Met	Asp	Ala	Cys	Leu	Arg	Cys		
	50					55					60						
Gln	Ala	Glu	Asn	Lys	Gln	Glu	Asp	Cys	Val	Val	Val	Trp	Gly	Glu	Cys		
65					70					75				80			
Asn	His	Ser	Phe	His	Asn	Cys	Cys	Met	Ser	Leu	Trp	Val	Lys	Gln	Asn		
			85					90						95			
Asn	Arg	Cys	Pro	Leu	Cys	Gln	Gln	Asp	Trp	Val	Val	Gln	Arg	Ile	Gly		
		100						105					110				

Lys

<210> 6119
 <211> 375
 <212> DNA
 <213> Homo sapiens

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 120
 tggccccaca gaactcatgc ctgcttgctt taaaccaccc aatgaaaact ccccatggga
 180
 aacctgcttg gataatactt tggaccccaa taaatgcttt aatcccacaa gtcctctgtc
 240
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 375

<210> 6120
 <211> 118
 <212> PRT
 <213> Homo sapiens

<400> 6120
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 20 25 30
 Gln Arg Gly Pro Thr Glu Leu Met Pro Ala Cys Phe Lys Pro Thr Asn
 35 40 45
 Glu Asn Ser Pro Trp Glu Thr Cys Leu Asp Asn Thr Leu Asp Pro Asn
 50 55 60
 Lys Cys Phe Asn Pro Thr Ser Pro Leu Ser Leu Pro Leu Ser Cys Pro
 65 70 75 80
 Tyr Pro Leu Val Glu His Val Cys Pro Lys Arg Pro Cys Lys Val Cys
 85 90 95
 Cys Pro Val Leu Ser Gly Leu Cys Gln Gly Ile Lys Leu Leu Leu Leu

100
Cys Asp Val Ser Cys Cys
115

105

110

<210> 6121
<211> 1039
<212> DNA
<213> Homo sapiens

<400> 6121
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180
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240
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420
cagaagaaaa attactccca cagtttgagt cccaagtacc aaaatattct gcaaaatgga
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1039

<210> 6122
<211> 221
<212> PRT
<213> Homo sapiens

<400> 6122
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20	25	30	
Cys His Ile Cys Phe Glu Leu Asn Ile Glu Gly Val Pro Lys Ser Asp			
35	40	45	
Leu Leu His Thr Lys Ser Leu Arg Gly His Lys Asp Cys Phe Glu Lys			
50	55	60	
Tyr His Leu Ile Ala Asn Gln Gly Cys Pro Arg Ser Lys Leu Ser Lys			
65	70	75	80
Ser Thr Tyr Glu Glu Val Lys Thr Ile Leu Ser Lys Lys Ile Asn Trp			
85	90	95	
Ile Val Gln Tyr Ala Gln Asn Lys Asp Leu Asp Ser Asp Ser Glu Cys			
100	105	110	
Ser Lys Lys Pro Gln His His Leu Phe Asn Phe Arg His Lys Pro Glu			
115	120	125	
Glu Lys Leu Leu Pro Gln Phe Glu Ser Gln Val Pro Lys Tyr Ser Ala			
130	135	140	
Lys Trp Ile Asp Gly Ser Ala Gly Gly Ile Ser Asn Cys Thr Gln Arg			
145	150	155	160
Ile Leu Glu Gln Arg Glu Asn Thr Asp Phe Gly Leu Ser Met Leu Gln			
165	170	175	
Asp Ser Gly Ala Thr Leu Cys Arg Asn Ser Val Leu Trp Pro His Ser			
180	185	190	
His Asn Gln Ala Gln Lys Lys Glu Thr Ile Ser Ser Pro Glu Ala			
195	200	205	
Asn Val Gln Thr Gln His Pro His Tyr Ser Arg Glu Glu			
210	215	220	

<210> 6123

<211> 900

<212> DNA

<213> Homo sapiens

<400> 6123

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 780
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<210> 6124
 <211> 300
 <212> PRT
 <213> Homo sapiens

<400> 6124
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 35 40 45
 Glu Ala Ala Leu Cys Pro Lys Pro Thr Ser Arg Ser Pro Asn Leu Gly
 50 55 60
 Pro Leu Gly Leu Phe Ser Leu Ser Val Pro Asn Leu Leu Ala Gly
 65 70 75 80
 Asn Lys Pro Pro Gly Leu Leu Pro Arg Lys Gly Leu Tyr Met Ala Asn
 85 90 95
 Asp Leu Lys Leu Leu Arg His His Leu Gln Ile Pro Ile His Phe Pro
 100 105 110
 Lys Asp Phe Leu Ser Val Met Leu Glu Lys Gly Ser Leu Ser Ala Met
 115 120 125
 Arg Phe Leu Thr Ala Val Asn Leu Glu His Pro Glu Met Leu Glu Lys
 130 135 140
 Ala Ser Arg Glu Leu Trp Met Arg Val Trp Ser Arg Val Ser Val Gly
 145 150 155 160
 Leu Trp Glu Ser Ser Gly Arg Thr Leu Asp Asp Phe Leu Thr Phe Pro
 165 170 175
 Arg His Val Phe Arg Val Met Ile Leu Pro Pro Pro Gly Gly Ser Thr
 180 185 190
 Val Leu Pro Val Thr Pro Leu Ser Pro His Arg Leu Pro Ala Val Phe
 195 200 205
 Ser Ser Ser Gln Asn Glu Asp Ile Thr Glu Pro Gln Ser Ile Leu Ala
 210 215 220
 Ala Ala Glu Lys Ala Gly Met Ser Ala Glu Gln Ala Gln Gly Leu Leu
 225 230 235 240
 Glu Lys Ile Ala Thr Pro Lys Val Lys Asn Gln Leu Lys Glu Thr Thr
 245 250 255
 Glu Ala Ala Cys Arg Tyr Gly Ala Phe Gly Leu Pro Ile Thr Val Ala
 260 265 270
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290

295

300

<210> 6125

<211> 468

<212> DNA

<213> Homo sapiens

<400> 6125

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 360
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 468

<210> 6126

<211> 156

<212> PRT

<213> Homo sapiens

<400> 6126

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Asp	Lys	Lys	Lys	Met	Lys	Gln	Asp	Leu	Glu	Asp	Ala	Ser	Asn	Lys	Ala
			20					25					30		
Glu	Glu	Glu	Arg	Ala	Arg	Leu	Glu	Gly	Glu	Leu	Lys	Gly	Leu	Gln	Glu
		35				40						45			
Gln	Ile	Ala	Glu	Thr	Lys	Ala	Arg	Leu	Ile	Thr	Gln	Gln	His	Asp	Arg
	50					55					60				
Ala	Gln	Glu	Gln	Ser	Asp	His	Ala	Leu	Met	Leu	Arg	Glu	Leu	Gln	Lys
65					70					75				80	
Leu	Leu	Gln	Glu	Glu	Arg	Thr	Gln	Arg	Gln	Asp	Leu	Glu	Leu	Arg	Leu
			85					90						95	
Glu	Glu	Thr	Arg	Glu	Ala	Leu	Ala	Gly	Arg	Ala	Tyr	Ala	Ala	Glu	Gln
		100						105					110		
Met	Glu	Gly	Phe	Glu	Leu	Gln	Thr	Lys	Gln	Leu	Thr	Arg	Glu	Val	Glu
		115				120						125			
Glu	Leu	Lys	Ser	Glu	Leu	Gln	Ala	Ile	Arg	Asp	Glu	Lys	Asn	Gln	Pro
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Asp	Pro	Arg	Leu	Gln	Glu	Leu	Gln	Glu	Glu	Ala	Ala				
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<210> 6127

<211> 1900

<212> DNA

<213> Homo sapiens

<400> 6127

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<210> 6128
 <211> 530
 <212> PRT
 <213> Homo sapiens

<400> 6128
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 35 40 45
 Arg Ala Ala Ala Glu Leu Ala Leu Ser Cys Leu Pro His Ala His Ala
 50 55 60
 Leu Asn Pro Asn Glu Ile Gln Arg Ala Leu Val Gln Cys Lys Glu Gln
 65 70 75 80
 Asp Asn Leu Met Leu Glu Lys Ala Cys Met Ala Val Glu Glu Ala Ala
 85 90 95
 Lys Gly Gly Gly Val Tyr Pro Glu Val Leu Phe Glu Val Ala His Gln
 100 105 110
 Trp Phe Trp Leu Tyr Glu Gln Thr Ala Gly Gly Ser Ser Thr Ala Arg
 115 120 125
 Glu Gly Ala Thr Ser Cys Ser Ala Ser Gly Ile Arg Ala Gly Gly Glu
 130 135 140
 Ala Gly Arg Gly Met Pro Glu Gly Arg Gly Gly Pro Gly Thr Glu Pro
 145 150 155 160
 Val Thr Val Ala Ala Ala Ala Val Thr Ala Ala Ala Thr Val Val Pro
 165 170 175
 Val Ile Ser Val Gly Ser Ser Leu Tyr Pro Gly Pro Gly Leu Gly His
 180 185 190
 Gly His Ser Pro Gly Leu His Pro Tyr Thr Ala Leu Gln Pro His Leu
 195 200 205
 Pro Cys Ser Pro Gln Tyr Leu Thr His Pro Ala His Pro Ala His Pro
 210 215 220
 Met Pro His Met Pro Arg Pro Ala Val Phe Pro Val Pro Ser Ser Ala
 225 230 235 240
 Tyr Pro Gln Gly Val His Pro Ala Phe Leu Gly Ala Gln Tyr Pro Tyr
 245 250 255
 Ser Val Thr Pro Pro Ser Leu Ala Ala Thr Ala Val Ser Phe Pro Val

260 265 270
 Pro Ser Met Ala Pro Ile Thr Val His Pro Tyr His Thr Glu Pro Gly
 275 280 285
 Leu Pro Leu Pro Thr Ser Val Ala Cys Glu Leu Trp Gly Gln Gly Thr
 290 295 300
 Val Ser Ser Val His Pro Ala Ser Thr Phe Pro Ala Ile Gln Gly Ala
 305 310 315 320
 Ser Leu Pro Ala Leu Thr Thr Gln Pro Ser Pro Leu Val Ser Gly Gly
 325 330 335
 Phe Pro Pro Pro Glu Glu Glu Thr His Ser Gln Pro Val Asn Pro His
 340 345 350
 Ser Leu His His Leu His Ala Ala Tyr Arg Val Gly Met Leu Ala Leu
 355 360 365
 Glu Met Leu Gly Arg Arg Ala His Asn Asp His Pro Asn Asn Phe Ser
 370 375 380
 Arg Ser Pro Pro Tyr Thr Asp Asp Val Lys Trp Leu Leu Gly Leu Ala
 385 390 395 400
 Ala Lys Leu Gly Val Asn Tyr Val His Gln Phe Cys Val Gly Ala Ala
 405 410 415
 Lys Gly Val Leu Ser Pro Phe Val Leu Gln Glu Ile Val Met Glu Thr
 420 425 430
 Leu Gln Arg Leu Ser Pro Ala His Ala His Asn His Leu Arg Ala Pro
 435 440 445
 Ala Phe His Gln Leu Val Gln Arg Cys Gln Gln Ala Tyr Met Gln Tyr
 450 455 460
 Ile His His Arg Leu Ile His Leu Thr Pro Ala Asp Tyr Asp Asp Phe
 465 470 475 480
 Val Asn Ala Ile Arg Ser Ala Arg Ser Ala Phe Cys Leu Thr Pro Met
 485 490 495
 Gly Met Met Gln Phe Asn Asp Ile Leu Gln Asn Leu Lys Arg Ser Lys
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 Ser Pro
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<210> 6129
 <211> 2012
 <212> DNA
 <213> Homo sapiens

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<210> 6130

<211> 364

<212> PRT

<213> Homo sapiens

<400> 6130

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Gly Pro Arg Leu Phe Leu Leu Gln Pro Leu Ala Pro Ser Gly Leu
 35           40           45
Thr Leu Lys Ser Glu Ala Leu Arg Asn Trp Gln Val Tyr Arg Leu Val
 50           55           60
Thr Tyr Ile Phe Val Tyr Glu Asn Pro Ile Ser Leu Leu Cys Gly Ala
 65           70           75           80
Ile Ile Ile Trp Arg Phe Ala Gly Asn Phe Glu Arg Thr Val Gly Thr
 85           90           95
Val Arg His Cys Phe Phe Thr Val Ile Phe Ala Ile Phe Ser Ala Ile
 100          105          110
Ile Phe Leu Ser Phe Glu Ala Val Ser Ser Leu Ser Lys Leu Gly Glu
 115          120          125
Val Glu Asp Ala Arg Gly Phe Thr Pro Val Ala Phe Ala Met Leu Gly
 130          135          140
Val Thr Thr Val Arg Ser Arg Met Arg Arg Ala Leu Val Phe Gly Met
 145          150          155          160
Val Val Pro Ser Val Leu Val Pro Trp Leu Leu Leu Gly Ala Ser Trp
 165          170          175
Leu Ile Pro Gln Thr Ser Phe Leu Ser Asn Val Cys Gly Leu Ser Ile
 180          185          190
Gly Leu Ala Tyr Gly Leu Thr Tyr Cys Tyr Ser Ile Asp Leu Ser Glu
 195          200          205
Arg Val Ala Leu Lys Leu Asp Gln Thr Phe Pro Phe Ser Leu Met Arg
 210          215          220
Arg Ile Ser Val Phe Lys Tyr Val Ser Gly Ser Ser Ala Glu Arg Arg
 225          230          235          240
Ala Ala Gln Ser Arg Lys Leu Asn Pro Val Pro Gly Ser Tyr Pro Thr
 245          250          255
Gln Ser Cys His Pro His Leu Ser Pro Ser His Pro Val Ser Gln Thr
 260          265          270
Gln His Ala Ser Gly Gln Lys Leu Ala Ser Trp Pro Ser Cys Thr Pro
 275          280          285
Gly His Met Pro Thr Leu Pro Pro Tyr Gln Pro Ala Ser Gly Leu Cys
 290          295          300
Tyr Val Gln Asn His Phe Gly Pro Asn Pro Thr Ser Ser Ser Val Tyr
 305          310          315          320
Pro Ala Ser Ala Gly Thr Ser Leu Gly Ile Gln Pro Pro Thr Pro Val
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355

360

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<211> 3526
<212> DNA
<213> Homo sapiens

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<210> 6132

<211> 167

<212> PRT

<213> Homo sapiens

<400> 6132

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			20					25					30		
Leu	Lys	Ile	Thr	Gln	Lys	Glu	Ser	Arg	Lys	Ser	Lys	Ser	Pro	Pro	Lys
		35					40					45			
Val	Pro	Ile	Val	Ile	Gln	Asp	Asp	Ser	Leu	Pro	Ala	Gly	Pro	Pro	Pro
	50				55						60				
Gln	Ile	Arg	Ile	Leu	Lys	Arg	Pro	Thr	Ser	Asn	Gly	Val	Val	Ser	Ser
65				70					75					80	
Pro	Asn	Ser	Thr	Ser	Arg	Pro	Thr	Leu	Pro	Val	Lys	Ser	Leu	Ala	Gln
			85					90					95		
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		100					105					110			
Ser	Pro	Glu	Glu	Glu	Gln	Glu	Lys	Pro	Ile	Leu	Asp	Arg	Ser	Ser	Ser
		115				120					125				
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	130				135				140						
Arg	Gln	Pro	Asn	Asn	Val	Ile	Arg	Gln	Pro	Leu	Gly	Pro	Asp	Gly	Ser
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<210> 6133

<211> 4156

<212> DNA

<213> Homo sapiens

<400> 6133

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<210> 6134

<211> 595

<212> PRT

<213> Homo sapiens

<400> 6134

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Asn	Asn	Glu	Leu	Thr	Val	Asn	Glu	Gly	Glu	Ile	Ile	Thr	Ile	Thr	Asn
			20					25					30		
Pro	Asp	Val	Gly	Gly	Gly	Trp	Leu	Glu	Gly	Arg	Asn	Ile	Lys	Gly	Glu
		35				40					45				
Arg	Gly	Leu	Val	Pro	Thr	Asp	Tyr	Val	Glu	Ile	Leu	Pro	Ser	Asp	Gly
	50				55					60					
Lys	Asp	Gln	Phe	Ser	Cys	Gly	Asn	Ser	Val	Ala	Asp	Gln	Ala	Phe	Leu
65				70					75					80	
Asp	Ser	Leu	Ser	Ala	Ser	Thr	Ala	Gln	Ala	Ser	Ser	Ser	Ala	Ala	Ser
			85					90					95		
Asn	Asn	His	Gln	Val	Gly	Ser	Gly	Asn	Asp	Pro	Trp	Ser	Ala	Trp	Ser
		100					105						110		
Ala	Ser	Lys	Ser	Gly	Asn	Trp	Glu	Ser	Ser	Glu	Gly	Trp	Gly	Ala	Gln

5315

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545                550                555                560
Tyr Asp Tyr Asn Ser Val Ile Arg Leu Tyr Leu Glu Gln Gln Val Gln
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Phe Tyr Glu Thr Ile Ala Glu Lys Leu Arg Gln Ala Leu Ser Arg Phe
                580                585                590
Pro Val Met
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<210> 6135
<211> 526
<212> DNA
<213> Homo sapiens

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<400> 6135
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120
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180
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240
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300
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360
gttttagagca tgtaggaatt ttgcataagg attttgaatc tattttacca accaggaaga
420
atcataatat ggcttcaagg ccattaactt ttacacctca accatatgtg acctcaccag
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<210> 6136
<211> 105
<212> PRT
<213> Homo sapiens

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<400> 6136
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Glu Ser Thr Trp Met Gln Pro Glu Arg Leu Ser Pro Gln Val His His
20          25          30
Ser Gln Pro Gln Pro Phe Ala Gly Thr Ala Gly Ser Leu Leu Ser His
35          40          45
Leu Leu Ser Leu Glu His Val Gly Ile Leu His Lys Asp Phe Glu Ser
50          55          60
Ile Leu Pro Thr Arg Lys Asn His Asn Met Ala Ser Arg Pro Leu Thr
65          70          75          80
Phe Thr Pro Gln Pro Tyr Val Thr Ser Pro Ala Ala Tyr Thr Asp Ala
85          90          95
Leu Val Lys Pro Ser Ala Ser Gln Tyr
100          105

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<210> 6137
<211> 2073
<212> DNA
<213> Homo sapiens

<400> 6137

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acgtggcgcc agcggaggca ggttgctgtg tttgtgcttc cttctacagc caatatgaaa
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420
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480
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540
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660
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<210> 6138

<211> 550

<212> PRT

<213> Homo sapiens

<400> 6138

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			20					25					30		
Arg	Lys	Glu	Ala	Lys	Lys	Gln	Gly	His	Lys	Lys	Pro	Arg	Lys	Asp	Pro
		35					40					45			
Gly	Val	Pro	Asn	Ser	Ala	Pro	Phe	Lys	Glu	Ala	Leu	Leu	Arg	Glu	Ala
		50				55					60				
Glu	Leu	Arg	Lys	Gln	Arg	Leu	Glu	Glu	Leu	Lys	Gln	Gln	Gln	Lys	Leu
65				70					75					80	
Asp	Arg	Gln	Lys	Glu	Leu	Glu	Lys	Lys	Arg	Lys	Leu	Glu	Thr	Asn	Pro
			85						90					95	
Asp	Ile	Lys	Xaa	Ile	Lys	Cys	Gly	Thr	Xaa	Met	Glu	Lys	Glu	Phe	Gly
		100					105						110		
Leu	Cys	Lys	Thr	Glu	Asn	Lys	Ala	Lys	Ser	Gly	Lys	Gln	Asn	Ser	Lys
		115					120					125			
Lys	Leu	Tyr	Cys	Gln	Glu	Leu	Lys	Lys	Val	Ile	Glu	Ala	Ser	Asp	Val
		130				135					140				
Val	Leu	Glu	Val	Leu	Asp	Ala	Arg	Asp	Pro	Leu	Gly	Cys	Arg	Cys	Pro
145				150						155				160	
Gln	Val	Glu	Glu	Ala	Ile	Val	Gln	Ser	Gly	Gln	Lys	Lys	Leu	Val	Leu
			165						170					175	
Ile	Leu	Asn	Lys	Ser	Asp	Leu	Val	Pro	Lys	Glu	Asn	Leu	Glu	Ser	Trp
		180						185					190		
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<210> 6139
<211> 2249
<212> DNA
<213> Homo sapiens
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<212> DNA

<213> Homo sapiens

<400> 6141

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<213> Homo sapiens

<400> 6142

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Gln Gln Gln Gln Gln Gln Leu Pro Arg Gly Glu Pro Pro Gly Arg
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<210> 6148

<211> 410

<212> PRT

<213> Homo sapiens

<400> 6148

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Gly Trp Ile Lys Lys Gly Thr Asp Val Asp Val Gly Pro Phe Leu Asn
 35           40           45
Ser Leu Val Gln Glu Gly Glu Trp Glu Arg Ala Ala Ala Val Ala Leu
 50           55           60
Phe Asn Leu Asp Ile Arg Arg Ala Ile Gln Ile Leu Asn Glu Gly Ala
 65           70           75           80
Ser Ser Glu Lys Gly Asp Leu Asn Leu Asn Val Val Ala Met Ala Leu
 85           90           95
Ser Gly Tyr Thr Asp Glu Lys Asn Ser Leu Trp Arg Glu Met Cys Ser
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Thr Leu Arg Leu Gln Leu Asn Asn Pro Tyr Leu Cys Val Met Phe Ala
 115          120          125
Phe Leu Thr Ser Glu Thr Gly Ser Tyr Asp Gly Val Leu Tyr Glu Asn
 130          135          140
Lys Val Ala Val Arg Asp Arg Val Ala Phe Ala Cys Lys Phe Leu Ser
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Asp Thr Gln Leu Asn Arg Tyr Ile Glu Lys Leu Thr Asn Glu Met Lys
 165          170          175
Glu Ala Gly Asn Leu Glu Gly Ile Leu Leu Thr Gly Leu Thr Lys Asp
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Gly Val Asp Leu Met Glu Ser Tyr Val Asp Arg Thr Gly Asp Val Gln
 195          200          205
Thr Ala Ser Tyr Cys Met Leu Gln Gly Ser Pro Leu Asp Val Leu Lys
 210          215          220
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 225          230          235          240
Ala Trp Arg Phe Trp His Lys Arg Ala Glu Phe Asp Ile His Arg Ser
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Lys Leu Asp Pro Ser Ser Lys Pro Leu Ala Gln Val Phe Val Ser Cys
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 275          280          285
Gln Gly Arg Gly Phe Ser Gln Tyr Gly Val Ser Gly Ser Pro Thr Lys
 290          295          300
Ser Lys Val Thr Ser Cys Pro Gly Cys Arg Lys Pro Leu Pro Arg Cys
 305          310          315          320
Ala Leu Cys Leu Ile Asn Met Gly Thr Pro Val Ser Ser Cys Pro Gly
 325          330          335
Gly Thr Lys Ser Asp Glu Lys Val Asp Leu Ser Lys Asp Lys Lys Leu
 340          345          350
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<210> 6149
<211> 1949
<212> DNA
<213> Homo sapiens
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<210> 6150

<211> 508

<212> PRT

<213> Homo sapiens

<400> 6150

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			20					25					30		
Lys	Val	Ser	Leu	Thr	Lys	Thr	Pro	Lys	Leu	Glu	Arg	Gly	Asp	Gly	Gly
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Lys	Glu	Val	Arg	Glu	Arg	Ala	Ser	Lys	Arg	Lys	Leu	Pro	Phe	Thr	Ala
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65				70					75					80	
Glu	Arg	Lys	Arg	Ile	Lys	Lys	Glu	Pro	Val	Thr	Arg	Lys	Ala	Gly	Leu
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Ala	Asn	Ser	Pro	Val	Asp	Thr	Thr	Pro	Lys	His	Pro	Ser	Gln	Ser	Thr
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Val	Cys	Gln	Lys	Gly	Thr	Pro	Asn	Ser	Ala	Ser	Lys	Thr	Lys	Asp	Lys
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Leu	Asn	Lys	Arg	Asn	Glu	Arg	Gly	Glu	Thr	Arg	Leu	His	Arg	Ala	Ala
			165				170						175		
Ile	Arg	Gly	Asp	Ala	Arg	Arg	Ile	Lys	Glu	Leu	Ile	Ser	Glu	Gly	Ala
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<210> 6151
<211> 648
<212> DNA
<213> Homo sapiens
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<210> 6152
 <211> 130
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Ala Gly Thr Val Asp Thr His Leu Pro Ser Leu Leu Leu Pro Val Ile
 50 55 60
 Leu His Pro Leu Gly Ala Ala Ser Ala Gly Arg Ala Leu Glu Pro Lys
 65 70 75 80
 Ala Asp Pro His Thr Cys Pro Tyr Gly Arg Lys Glu Ser Arg Gly Glu
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<210> 6153
 <211> 1810
 <212> DNA
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 <211> 388
 <212> PRT
 <213> Homo sapiens

<400> 6154

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Ser	Arg	Ala	Tyr	Arg	Phe	Thr	Gly	His	Lys	Asp	Ala	Val	Thr	Cys	Val
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Asn	Phe	Ser	Pro	Ser	Gly	His	Leu	Leu	Ala	Ser	Gly	Ser	Arg	Asp	Lys
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Thr	Val	Arg	Ile	Trp	Val	Pro	Asn	Val	Lys	Gly	Glu	Ser	Thr	Val	Phe
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Arg	Ala	His	Thr	Ala	Thr	Val	Arg	Ser	Val	His	Phe	Cys	Ser	Asp	Gly
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Gln	Ser	Phe	Val	Thr	Ala	Ser	Asp	Asp	Lys	Thr	Val	Lys	Val	Trp	Ala
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Thr	His	Arg	Gln	Lys	Phe	Leu	Phe	Ser	Leu	Ser	Gln	His	Ile	Asn	Trp
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Val	Arg	Cys	Ala	Lys	Phe	Ser	Pro	Asp	Gly	Arg	Leu	Ile	Val	Ser	Ala
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Ser	Asp	Asp	Lys	Thr	Val	Lys	Leu	Trp	Asp	Lys	Ser	Ser	Arg	Glu	Cys
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Val	His	Ser	Tyr	Cys	Glu	His	Gly	Gly	Phe	Val	Thr	Tyr	Val	Asp	Phe
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His	Pro	Ser	Gly	Thr	Cys	Ile	Ala	Ala	Ala	Gly	Met	Asp	Asn	Thr	Val
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Lys	Val	Trp	Asp	Val	Arg	Thr	His	Arg	Leu	Leu	Gln	His	Tyr	Gln	Leu
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His	Ser	Ala	Ala	Val	Asn	Gly	Leu	Ser	Phe	His	Pro	Ser	Gly	Asn	Tyr
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Glu	Gly	Arg	Leu	Leu	Tyr	Thr	Leu	His	Gly	His	Gln	Gly	Pro	Ala	Thr
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Thr	Val	Ala	Phe	Ser	Arg	Thr	Gly	Glu	Tyr	Phe	Ala	Ser	Gly	Gly	Ser
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Trp	Ser	Val	Glu	Ser	Val	Gln	Ser	Gln	Pro	Gln	Glu	Pro	Val	Ser	Val
				325					330					335	
Pro	Gln	Thr	Leu	Thr	Ser	Thr	Leu	Glu	His	Ile	Val	Gly	Gln	Leu	Asp
			340					345					350		
Val	Leu	Thr	Gln	Thr	Val	Ser	Ile	Leu	Glu	Gln	Arg	Leu	Thr	Leu	Thr
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375

380

<210> 6155
<211> 995
<212> DNA
<213> Homo sapiens

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<210> 6156
<211> 164
<212> PRT
<213> Homo sapiens

<400> 6156
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Met Thr Leu Ala Asp Gly Arg Val Val Leu Ala Leu Glu Gly Gly His					
50		55		60	
Asp Leu Thr Ala Ile Cys Asp Ala Ser Glu Ala Cys Val Asn Ala Leu					
65		70		75	80
Leu Gly Asn Glu Leu Glu Pro Leu Ala Glu Asp Ile Leu His Gln Ser					
	85		90		95
Pro Asn Met Asn Ala Val Ile Ser Leu Gln Lys Ile Ile Glu Ile Gln					
	100		105		110
Lys Leu Leu Val Ser Leu Trp Lys Arg Ser Gln Pro Cys Glu Val Pro					
	115		120		125
Ser Pro Pro Leu Ile Phe Pro Val Cys Asp Ile Ile Val Tyr Pro Pro					
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<210> 6157

<211> 2135

<212> DNA

<213> Homo sapiens

<400> 6157

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<210> 6158

<211> 455

<212> PRT

<213> Homo sapiens

<400> 6158

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<211> 551

<212> PRT

<213> Homo sapiens

<400> 6160

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5345

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	485		490	495
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Gly Gly Gly Ser Thr Ser Ala His Tyr Ala Val Asn Ser Gln Phe Thr				
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 1020

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<210> 6162

<211> 58

<212> PRT

<213> Homo sapiens

<400> 6162

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			20					25					30		
Arg	Lys	Gly	Thr	Glu	Pro	Gly	Val	Val	Ala	His	Ala	Cys	Asn	Pro	Xaa
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<210> 6163

<211> 713

<212> DNA

<213> Homo sapiens

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<210> 6164
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 <212> PRT
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<400> 6164
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 35 40 45
 Ser Asp Gly Tyr Arg Tyr Leu Gly Lys Asp Thr Val Asp Gly Leu Asp
 50 55 60
 Ser Ser Leu Leu Lys Cys Thr Arg Arg Cys Met Arg Gly Phe Arg Leu
 65 70 75 80
 Pro Glu Lys Gln Pro Ser Lys Thr Arg Val Ser Phe Leu Glu Ser Lys
 85 90 95
 Arg Lys Glu Gly Ser Gly Trp Leu His Trp Ser Val Thr Arg Ser Gly
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 Ala Phe Arg Leu Lys Val Thr Val
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<210> 6165
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 <212> DNA
 <213> Homo sapiens

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<210> 6166

<211> 239

<212> PRT

<213> Homo sapiens

<400> 6166

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			20					25					30		
Gly	Gly	Pro	Thr	Pro	Gln	Glu	Ala	Ile	Gln	Arg	Leu	Arg	Asp	Thr	Glu
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	50					55					60				
Glu	Leu	Thr	Ala	Ala	Lys	His	Gly	Thr	Lys	Asn	Lys	Arg	Ala	Ala	
65					70				75					80	
Leu	Gln	Ala	Leu	Lys	Arg	Lys	Lys	Arg	Tyr	Glu	Lys	Gln	Leu	Ala	Gln
				85				90					95		
Ile	Asp	Gly	Thr	Leu	Ser	Thr	Ile	Glu	Phe	Gln	Arg	Glu	Ala	Leu	Glu
			100					105					110		
Asn	Ala	Asn	Thr	Asn	Thr	Glu	Val	Leu	Lys	Asn	Met	Gly	Tyr	Ala	Ala
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Lys	Ala	Met	Lys	Ala	Ala	His	Asp	Asn	Met	Asp	Ile	Asp	Lys	Val	Asp
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Lys	Asn	Leu	Glu	Ile	Ser	Gly	Pro	Glu	Thr	Val	Pro	Leu	Pro	Asn	
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230

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<211> 1220

<212> DNA

<213> Homo sapiens

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420

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720

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<210> 6168

<211> 90

<212> PRT

<213> Homo sapiens

<400> 6168

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      20           25           30
Ile Gln His Phe His Leu Ile Lys Thr Ser Leu Ile Phe Leu Cys Phe
      35           40           45
Leu Phe His Gly Ile His Glu Asn Leu Leu Thr Val Gly Val Ser Lys
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<210> 6169

<211> 720

<212> DNA

<213> Homo sapiens

<400> 6169

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<210> 6170

<211> 101

<212> PRT

<213> Homo sapiens

<400> 6170

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Met Met Gln Glu Ser Gly Thr Glu Thr Lys Ser Asn Gly Ser Ala Ile

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		20				25							30		
Arg	Glu	Gly	Arg	Ser	Asn	Gly	Glu	Thr	Pro	Ala	Val	Asp	Ile	Gly	Ala
		35				40						45			
Ala	Asp	Leu	Ala	His	Ala	Gln	Gln	Gln	Gln	Gln	Gln	Trp	His	Leu	Ile
		50				55					60				
Asn	His	Gln	Pro	Ser	Arg	Ser	Pro	Ser	Ser	Trp	Leu	Lys	Arg	Leu	Ile
65					70					75				80	
Ser	Ser	Pro	Trp	Glu	Leu	Glu	Val	Leu	Gln	Val	Pro	Cys	Gly	Glu	Gln
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<210> 6171

<211> 1130

<212> DNA

<213> Homo sapiens

<400> 6171

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180
cgggacaggg atgtctacct ggtaatagag gacttgaagc agaaagcaag tgaatacagag
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420
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480
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720
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840
gctgaactta caagaagagt agacatgatg gaactgtgac aaaagccaaa taaacatcct
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ctaataacaa aactttctgt gttcttagat tacagaatat cataattgat agaatatggg
1020

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<210> 6172
 <211> 292
 <212> PRT
 <213> Homo sapiens

<400> 6172
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 35 40 45
 Glu Ile Leu His His Leu Ser Glu Arg Asn Arg Val Arg Asp Arg Asp
 50 55 60
 Val Tyr Leu Val Ile Glu Asp Leu Lys Gln Lys Ala Ser Glu Tyr Glu
 65 70 75 80
 Ser Glu Ala Lys Tyr Leu Gln Asp Leu Leu Met Glu Ser Val Asn Phe
 85 90 95
 Ser Pro Ala Asn Leu Ser Ser Thr Gly Ser Arg Tyr Leu Asn Ala Leu
 100 105 110
 Val Asp Ser Ala Val Ala Leu Glu Thr Lys Asp Thr Ser Leu Ala Ser
 115 120 125
 Phe Ile Pro Ala Val Asn Asp Leu Thr Ser Asp Leu Phe Arg Thr Lys
 130 135 140
 Ser Lys Ser Glu Glu Ile Lys Ile Glu Leu Glu Lys Leu Glu Lys Asn
 145 150 155 160
 Leu Thr Ala Thr Leu Val Leu Glu Lys Cys Leu Gln Glu Asp Val Lys
 165 170 175
 Lys Ala Glu Leu His Leu Ser Thr Glu Arg Ala Lys Val Asp Asn Arg
 180 185 190
 Arg Gln Asn Met Asp Phe Leu Lys Ala Lys Ser Glu Glu Phe Arg Phe
 195 200 205
 Gly Ile Lys Ala Ala Glu Glu Gln Leu Ser Ala Arg Gly Met Asp Ala
 210 215 220
 Ser Leu Ser His Gln Ser Leu Val Ala Leu Ser Glu Lys Leu Ala Arg
 225 230 235 240
 Leu Lys Gln Gln Thr Ile Pro Leu Lys Lys Lys Leu Glu Ser Tyr Leu
 245 250 255
 Asp Leu Met Pro Asn Pro Ser Leu Ala Gln Val Lys Ile Glu Glu Ala
 260 265 270
 Lys Arg Glu Leu Asp Ser Ile Glu Ala Glu Leu Thr Arg Arg Val Asp
 275 280 285
 Met Met Glu Leu
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<210> 6173
 <211> 1483
 <212> DNA
 <213> Homo sapiens

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caaggcctgt tgatgcagcc atgggcgtgg ctacagcttg cagagaactc cctcttggcc
180
aaggttttta tcaccaagca gggctatgcc ttgttggttt cagatcttca acagggtgtg
240
catgaacagg tggacactag tgtggtcagc cagcgagcca aggagctgaa caagcggctc
300
actgctctc ctgcagcttt cctctgtcat ttggataatc tccttcgccc attgttgaag
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420
ctacgggtgc gaagtgaagt ctctggcctc cccttctatt ggaatttcca ctgcatgcta
480
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660
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720
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780
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900
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960
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1020
gctgtgagg atggacttgg agaatagctt ccaagcttca ccttgaaaga agcttacatg
1080
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1200
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1483

<210> 6174

<211> 299
 <212> PRT
 <213> Homo sapiens

<400> 6174

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 20          25          30
Gly Tyr Ala Leu Leu Val Ser Asp Leu Gln Gln Val Trp His Glu Gln
 35          40          45
Val Asp Thr Ser Val Val Ser Gln Arg Ala Lys Glu Leu Asn Lys Arg
 50          55          60
Leu Thr Ala Pro Pro Ala Ala Phe Leu Cys His Leu Asp Asn Leu Leu
 65          70          75          80
Arg Pro Leu Leu Lys Asp Ala Ala His Pro Ser Glu Ala Thr Phe Ser
 85          90          95
Cys Asp Cys Val Ala Asp Ala Leu Ile Leu Arg Val Arg Ser Glu Leu
100          105          110
Ser Gly Leu Pro Phe Tyr Trp Asn Phe His Cys Met Leu Ala Ser Pro
115          120          125
Ser Leu Val Ser Gln His Leu Ile Arg Pro Leu Met Gly Met Ser Leu
130          135          140
Ala Leu Gln Cys Gln Val Arg Glu Leu Ala Thr Leu Leu His Met Lys
145          150          155          160
Asp Leu Glu Ile Gln Asp Tyr Gln Glu Ser Gly Ala Thr Leu Ile Arg
165          170          175
Asp Arg Leu Lys Thr Glu Pro Phe Glu Glu Asn Ser Phe Leu Glu Gln
180          185          190
Phe Met Ile Glu Lys Leu Pro Glu Ala Cys Ser Ile Gly Asp Gly Lys
195          200          205
Pro Phe Val Met Asn Leu Gln Asp Leu Tyr Met Ala Val Thr Thr Gln
210          215          220
Glu Val Gln Val Gly Gln Lys His Gln Gly Ala Gly Asp Pro His Thr
225          230          235          240
Ser Asn Ser Ala Ser Leu Gln Gly Ile Asp Ser Gln Cys Val Asn Gln
245          250          255
Pro Glu Gln Leu Val Ser Ser Ala Pro Thr Leu Ser Ala Pro Glu Lys
260          265          270
Glu Ser Thr Gly Thr Ser Gly Pro Leu Gln Arg Pro Gln Leu Ser Lys
275          280          285
Val Lys Arg Lys Asn Pro Arg Gly Leu Phe Ser
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<210> 6175
 <211> 349
 <212> DNA
 <213> Homo sapiens

<400> 6175

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aggactggga tttcaaatat gcgtgcatta gagaatgact ttttcaattc tcccccaaga
120

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aaaactgttc agtttggtgg aactgtgaca gaagtcttgc tgaagtacaa aaagggtgaa
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 acaaatgact ttgagttggt gaagaaccag ctgtagatc cagacataaa gagattgcct
 240
 tggttgaata gaagtcaaac agtagtggaag gagtatttgg cttttcttgg taatcttgta
 300
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<210> 6176

<211> 90

<212> PRT

<213> Homo sapiens

<400> 6176

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Val	Gln	Phe	Gly	Gly	Thr	Val	Thr	Glu	Val	Leu	Leu	Lys	Tyr	Lys	Lys
			20					25					30		
Gly	Glu	Thr	Asn	Asp	Phe	Glu	Leu	Leu	Lys	Asn	Gln	Leu	Leu	Asp	Pro
		35					40					45			
Asp	Ile	Lys	Arg	Leu	Pro	Trp	Leu	Asn	Arg	Ser	Gln	Thr	Val	Val	Glu
	50					55				60					
Glu	Tyr	Leu	Ala	Phe	Leu	Gly	Asn	Leu	Val	Ser	Ala	Gln	Thr	Val	Phe
65					70					75					80
Leu	Arg	Pro	Cys	Leu	Ser	Met	Ile	Ala	Ser						
				85					90						

<210> 6177

<211> 1536

<212> DNA

<213> Homo sapiens

<400> 6177

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 120
 ttctagcttt ctgtctctat gggtagctca gtggagtcac tgggcgaatg ggccatgctg
 180
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 240
 gccctggaaa acatcagaaa ggagatgaag ttgctggagc aggcagggtc tctgaaaggc
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 600

gccctacga cagtggacag aaccacgcc ctgatgaaga agattgganc agtgcccat
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 720
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 780
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 840
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 900
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 960
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 1536

<210> 6178

<211> 310

<212> PRT

<213> Homo sapiens

<400> 6178

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Ser	Gly	Gly	Phe	Gln	Val	Lys	Leu	Tyr	Asp	Ile	Glu	Gln	Gln	Ile	
			20					25					30		
Arg	Asn	Ala	Leu	Glu	Asn	Ile	Arg	Lys	Glu	Met	Lys	Leu	Leu	Glu	Gln
			35				40						45		
Ala	Gly	Ser	Leu	Lys	Gly	Ser	Leu	Ser	Val	Glu	Glu	Gln	Leu	Ser	Leu
			50			55					60				
Ile	Ser	Gly	Cys	Pro	Asn	Ile	Gln	Glu	Ala	Val	Glu	Gly	Ala	Met	His
65					70				75					80	
Ile	Gln	Glu	Cys	Val	Pro	Glu	Asp	Leu	Glu	Leu	Lys	Lys	Lys	Ile	Phe
			85					90						95	
Ala	Gln	Leu	Asp	Ser	Ile	Ile	Asp	Asp	Arg	Val	Ile	Leu	Ser	Ser	Ser
			100					105					110		
Thr	Ser	Cys	Leu	Met	Pro	Ser	Lys	Leu	Phe	Ala	Gly	Leu	Val	His	Val

115 120 125
 Lys Gln Cys Ile Val Ala His Pro Val Asn Pro Pro Tyr Tyr Ile Pro
 130 135 140
 Leu Val Glu Leu Val Pro His Pro Glu Thr Ala Pro Thr Thr Val Asp
 145 150 155 160
 Arg Thr His Ala Leu Met Lys Lys Ile Gly Xaa Val Pro His Ala Ser
 165 170 175
 Pro Glu Gly Gly Gly Arg Leu Arg Ser Glu Pro Pro Ala Ile Cys Asn
 180 185 190
 His Gln Arg Gly Leu Ala Ala Ser Gly Gly Arg Asn Xaa Cys Leu Leu
 195 200 205
 Val Thr Trp Xaa Leu Val Met Ser Glu Gly Leu Gly Met Arg Tyr Ala
 210 215 220
 Phe Ile Gly Pro Leu Glu Thr Met His Leu Asn Ala Glu Gly Met Leu
 225 230 235 240
 Ser Tyr Cys Asp Arg Tyr Ser Glu Gly Ile Lys His Val Leu Gln Thr
 245 250 255
 Phe Gly Pro Ile Pro Glu Phe Ser Arg Ala Thr Ala Glu Lys Val Asn
 260 265 270
 Gln Asp Met Cys Met Lys Val Pro Asp Asp Pro Glu His Leu Ala Ala
 275 280 285
 Arg Arg Gln Trp Arg Asp Glu Cys Leu Met Arg Leu Ala Lys Leu Lys
 290 295 300
 Ser Gln Val Gln Pro Gln
 305 310

<210> 6179
 <211> 2940
 <212> DNA
 <213> Homo sapiens

<400> 6179
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 120
 aagccatata ggctgtgaag gtccagtcct tccaaatgaa gagatgcctg gacaaaaaca
 180
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 420
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 480
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 540
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<210> 6180

<211> 751

<212> PRT

<213> Homo sapiens

<400> 6180

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Arg	Val	Thr	Met	Asn	Phe	Ile	Trp	Pro	Phe	Leu	Met	Asn	Cys	Thr	Thr
			20					25					30		
Trp	Arg	Xaa	Tyr	Leu	Thr	Asp	Glu	Phe	Ala	Lys	Gly	Arg	Lys	Val	Ala
			35				40					45			
Asp	Leu	Tyr	Glu	Leu	Val	Gln	Tyr	Ala	Gly	Asn	Ile	Ile	Pro	Arg	Leu
			50			55					60				
Tyr	Leu	Leu	Ile	Thr	Val	Gly	Val	Val	Tyr	Val	Lys	Ser	Phe	Pro	Gln
65					70					75				80	
Ser	Arg	Lys	Asp	Ile	Leu	Lys	Asp	Leu	Val	Glu	Met	Cys	Arg	Gly	Val
				85					90					95	
Gln	His	Pro	Leu	Arg	Gly	Leu	Phe	Leu	Arg	Asn	Tyr	Leu	Leu	Gln	Cys
			100					105					110		
Thr	Arg	Asn	Ile	Leu	Pro	Asp	Glu	Gly	Glu	Pro	Thr	Asp	Glu	Glu	Thr
		115				120						125			
Thr	Gly	Asp	Ile	Ser	Asp	Ser	Met	Asp	Phe	Val	Leu	Leu	Asn	Phe	Ala
			130			135					140				
Glu	Met	Asn	Lys	Leu	Trp	Val	Arg	Met	Gln	His	Gln	Gly	His	Ser	Arg
145				150					155					160	
Asp	Arg	Glu	Lys	Arg	Glu	Arg	Glu	Arg	Gln	Glu	Leu	Arg	Ile	Leu	Val
			165						170					175	
Gly	Thr	Asn	Leu	Val	Arg	Leu	Ser	Xaa	Ser	Trp	Arg	Cys	Lys	Cys	Gly
			180				185						190		
Thr	Leu	Gln	Gln	Ile	Val	Leu	Thr	Gly	Ile	Leu	Glu	Gln	Val	Val	Asn

5361

625		630		635		640									
Asn	Gly	Glu	Glu	Leu	His	Gly	Gly	Lys	Arg	Val	Met	Glu	Cys	Leu	Lys
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Lys	Ala	Leu	Lys	Ile	Ala	Asn	Gln	Cys	Met	Asp	Pro	Ser	Leu	Gln	Val
		660		665		670									
Gln	Leu	Phe	Ile	Glu	Ile	Leu	Asn	Arg	Tyr	Ile	Tyr	Phe	Tyr	Glu	Lys
		675		680		685									
Glu	Asn	Asp	Ala	Val	Thr	Ile	Gln	Val	Leu	Asn	Gln	Leu	Ile	Gln	Lys
		690		695		700									
Ile	Arg	Glu	Asp	Leu	Pro	Asn	Leu	Glu	Ser	Ser	Glu	Glu	Thr	Glu	Gln
		705		710		715									
Ile	Asn	Lys	His	Phe	His	Asn	Thr	Leu	Glu	His	Leu	Arg	Leu	Arg	Arg
		725		730		735									
Glu	Ser	Pro	Glu	Ser	Glu	Gly	Pro	Ile	Tyr	Glu	Gly	Leu	Ile	Leu	
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<210> 6181
 <211> 1135
 <212> DNA
 <213> Homo sapiens

<400> 6181
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<210> 6182

<211> 236

<212> PRT

<213> Homo sapiens

<400> 6182

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			20					25					30		
Glu	Val	Phe	Phe	Leu	Pro	Asp	Leu	Pro	Thr	Thr	Pro	Tyr	Phe	Ser	Arg
		35					40					45			
Asp	Ala	Gln	Lys	His	Asp	Val	Glu	Val	Leu	Glu	Arg	Asn	Phe	Gln	Thr
	50					55					60				
Ile	Leu	Cys	Glu	Phe	Glu	Thr	Leu	Tyr	Lys	Ala	Phe	Ser	Asn	Cys	Ser
65					70					75				80	
Leu	Pro	Gln	Gly	Trp	Lys	Met	Asn	Ser	Thr	Pro	Ser	Gly	Glu	Trp	Phe
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Thr	Phe	Tyr	Leu	Val	Asn	Gln	Gly	Val	Cys	Val	Pro	Arg	Asn	Cys	Arg
			100					105					110		
Lys	Cys	Pro	Arg	Thr	Tyr	Arg	Leu	Leu	Gly	Ser	Leu	Arg	Thr	Cys	Ile
		115					120					125			
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Thr	Val	Ile	Thr	Glu	His	Tyr	Gly	Pro	Thr	Asn	Ile	Arg	Ile	Arg	Cys
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				165					170					175	
Glu	Pro	Gln	Cys	Trp	Ala	Glu	Gly	Arg	Cys	Leu	Leu	Phe	Asp	Asp	Ser
		180						185					190		
Phe	Leu	His	Ala	Ala	Phe	His	Glu	Gly	Ser	Ala	Glu	Asp	Gly	Pro	Arg
	195						200					205			
Val	Val	Phe	Met	Val	Asp	Leu	Trp	His	Pro	Asn	Val	Ala	Ala	Ala	Glu
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<210> 6183

<211> 2530

<212> DNA

<213> Homo sapiens

<400> 6183

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<211> 308

<212> PRT

<213> Homo sapiens

<400> 6184

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Gly	Met	Gly	Asn	Arg	Gly	Gly	Phe	Arg	Gly	Gly	Phe	Gly	Ser	Gly	Ile
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Arg	Gly	Arg	Gly	Arg	Gly	Arg	Gly	Arg	Gly	Arg	Gly	Arg	Gly	Arg	Gly
	50				55						60				
Ala	Arg	Gly	Gly	Lys	Ala	Glu	Asp	Lys	Glu	Trp	Met	Pro	Val	Thr	Lys
65				70				75						80	
Leu	Gly	Arg	Leu	Val	Lys	Asp	Met	Lys	Ile	Lys	Ser	Leu	Glu	Glu	Ile
			85					90						95	
Tyr	Leu	Phe	Ser	Leu	Pro	Ile	Lys	Glu	Ser	Glu	Ile	Ile	Asp	Phe	Phe
		100					105						110		
Leu	Gly	Ala	Ser	Leu	Lys	Asp	Glu	Val	Leu	Lys	Ile	Met	Pro	Val	Gln
	115					120					125				
Lys	Gln	Thr	Arg	Ala	Gly	Gln	Arg	Thr	Arg	Phe	Lys	Ala	Phe	Val	Ala
	130				135					140					
Ile	Gly	Asp	Tyr	Asn	Gly	His	Val	Gly	Leu	Gly	Val	Lys	Cys	Ser	Lys

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 165 170 175
 Ile Val Pro Val Arg Arg Gly Tyr Trp Gly Asn Lys Ile Gly Lys Pro
 180 185 190
 His Thr Val Pro Cys Lys Val Thr Gly Arg Cys Gly Ser Val Leu Val
 195 200 205
 Arg Leu Ile Pro Ala Pro Arg Gly Thr Gly Ile Val Ser Ala Pro Val
 210 215 220
 Pro Lys Lys Leu Leu Met Met Ala Gly Ile Asp Asp Cys Tyr Thr Ser
 225 230 235 240
 Ala Arg Gly Cys Thr Ala Thr Leu Gly Asn Phe Ala Lys Ala Thr Phe
 245 250 255
 Asp Ala Ile Ser Lys Thr Tyr Ser Tyr Leu Thr Pro Asp Leu Trp Lys
 260 265 270
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 290 295 300
 Val Ala Thr Thr
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<210> 6185
 <211> 1231
 <212> DNA
 <213> Homo sapiens

<400> 6185
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<210> 6186
 <211> 133
 <212> PRT
 <213> Homo sapiens

<400> 6186
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 35 40 45
 Ala Gln Leu Ser His Cys Lys Ser Leu Gly His Phe Glu Asn Leu Gln
 50 55 60
 Lys Tyr Lys Ala Ala Lys Asn Pro Ser Pro Thr Thr Arg Pro Val Ser
 65 70 75 80
 Arg Arg Cys Ala Ile Asn Ala Arg Asn Ala Leu Thr Ala Leu Phe Thr
 85 90 95
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 Ser Lys Val Thr Ala Arg Pro Ser Gln Pro Pro Leu Pro Arg Arg Ser
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 Thr Arg Leu Lys Thr
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<210> 6187
 <211> 909
 <212> DNA
 <213> Homo sapiens

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 180

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<210> 6188

<211> 227

<212> PRT

<213> Homo sapiens

<400> 6188

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 35 40 45
 Phe Tyr Pro Glu Leu Gly Asn Ile Gly Cys Lys Val Val Pro Asp Cys
 50 55 60
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 65 70 75 80
 Phe Pro Gly Ala Val Tyr Gly Ala Thr Tyr Ile Leu Val Met Val Asp
 85 90 95
 Pro Asp Ala Pro Ser Arg Ala Glu Pro Arg Gln Arg Phe Trp Arg His
 100 105 110
 Trp Leu Val Thr Asp Ile Lys Gly Ala Asp Leu Lys Lys Gly Lys Ile
 115 120 125
 Gln Gly Gln Glu Leu Ser Ala Tyr Gln Ala Pro Ser Pro Pro Ala His
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2761

<210> 6190

<211> 576

<212> PRT

<213> Homo sapiens

<400> 6190

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<212> DNA

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<210> 6198

<211> 124

<212> PRT

<213> Homo sapiens

<400> 6198

Met Gly Ala Ser His Gly Asn Trp Glu Val Pro Arg Gln Ser Gln Arg

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Ser Ser Gln His His Gly Leu Asn Thr His Trp Ala Pro Thr Leu Gly			
	35	40	45
Pro Gly Trp Gly Met Trp Gly Gln Glu Ala Ala Gln Ser Gly Arg Gln			
	50	55	60
Arg Glu Lys Cys Val Gln Arg Ala Pro Ile Ser Gly Cys Asn Val Val			
65	70	75	80
Leu Arg Leu Trp Leu Gly Ser Ala Ser Arg Val Ser Tyr Val Leu Cys			
	85	90	95
Ser Tyr Phe Leu Ser Pro Thr Leu Pro Cys Arg Asn Pro Ser Glu Tyr			
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Val Ala Thr Ile Leu Glu Leu Ser Ala Leu Ile Val			
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<210> 6199

<211> 1777

<212> DNA

<213> Homo sapiens

<400> 6199

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<210> 6200

<211> 164

<212> PRT

<213> Homo sapiens

<400> 6200

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Pro	Pro	Lys	Pro	Asp	Cys	Gln	Gln	Lys	Pro	Ser	Pro	Ser	Glu	Gly	Gln
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Cys	Pro	Val	Pro	Gly	Met	Pro	Gly	Gly	Arg	Pro	Leu	Cys	Cys	Cys	His
65				70					75					80	
Cys	Cys	Gln	His	Cys	Pro	Ala	Cys	Glu	Ala	Arg	Arg	Ser	Pro	Cys	Pro
			85					90					95		
Thr	Arg	Cys	Cys	Cys	Ser	Ser	Asp	Pro	Cys	Cys	Glu	Glu	Trp	Asp	Ser
		100						105					110		
Trp	Ser	Lys	Lys	Leu	Val	Phe	Leu	Phe	Cys	Ile	Asn	Glu	Lys	Asn	Pro
	115					120						125			
Gly	Glu	Ala	Ala	Thr	Leu	Pro	Ser	Gln	Arg	Asp	Ala	Leu	Pro	Cys	Phe
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150

155

160

<210> 6201

<211> 604

<212> DNA

<213> Homo sapiens

<400> 6201

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<210> 6202

<211> 124

<212> PRT

<213> Homo sapiens

<400> 6202

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35 40 45
Ala Gly Leu Arg Gly Cys Arg Glu Glu Phe Gly Gly Lys Gly Gln Pro
50 55 60
Gln Ser Leu Ser Cys Ala Ser Trp Glu Arg Gly Met Thr Gly Arg His
65 70 75 80
Thr Asn Val Ser Gln Gly Arg Trp Ala Trp Gly His Arg Ala Pro Arg
85 90 95
Gly Gly Ser Gly Glu Gly Glu Pro Ala Glu Glu Arg Pro Gly Arg Ala
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<210> 6203
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<212> DNA
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<210> 6204

<211> 486

<212> PRT

<213> Homo sapiens

<400> 6204

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			20					25					30		
Asp	Gly	His	Arg	Leu	Cys	Ser	Asp	Leu	Met	Asn	Cys	Leu	His	Glu	Arg
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Ala	Arg	Ile	Glu	Lys	Ala	Tyr	Ala	Gln	Gln	Leu	Thr	Glu	Trp	Ala	Arg
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Lys	Ala	Trp	Met	Ala	Phe	Met	Ser	Glu	Ala	Glu	Arg	Val	Ser	Glu	Leu
				85					90					95	
His	Leu	Glu	Val	Lys	Ala	Ser	Leu	Met	Asn	Asp	Asp	Phe	Glu	Lys	Ile
			100					105					110		
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Lys	Glu	Thr	Lys	Glu	Ala	Glu	Asp	Gly	Phe	Arg	Lys	Ala	Gln	Lys	Pro
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Trp	Ala	Lys	Lys	Leu	Lys	Glu	Val	Glu	Ala	Ala	Lys	Lys	Ala	His	His
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			165					170						175	
Lys	Ala	Asp	Pro	Ser	Leu	Asn	Pro	Glu	Gln	Leu	Lys	Lys	Leu	Gln	Asp
			180					185						190	
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<210> 6206

<211> 92

<212> PRT

<213> Homo sapiens

<400> 6206

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			20					25					30		
Arg	Glu	Gly	Lys	Glu	Phe	Ala	Asp	Ser	Gln	Lys	Leu	Leu	Phe	Met	Glu
			35				40					45			
Thr	Ser	Ala	Lys	Leu	Asn	His	Gln	Val	Ser	Glu	Val	Phe	Asn	Thr	Val
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Ala	Gln	Glu	Leu	Leu	Gln	Arg	Ser	Asp	Glu	Glu	Gly	Gln	Ala	Leu	Xaa
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Gly	Glu	Asp	Thr	Pro	Cys	Leu	Gly	His	Gly	Gln	Leu				
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<210> 6207

<211> 1384

<212> DNA

<213> Homo sapiens

<400> 6207

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<211> 290

<212> PRT

<213> Homo sapiens

<400> 6208

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<211> 2269

<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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<212> DNA

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<212> PRT

<213> Homo sapiens

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Ala Phe Glu Gly Ser Tyr Leu Glu Asp Thr Gln Met Tyr Gly Asn Ile
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130 135 140
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Gln Lys Ala Ala Ser Ser Thr Ser Ser Gly Ser His His Ser Ser His
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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 6218

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<212> DNA

<213> Homo sapiens

<400> 6219

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 Gly Gly Pro Ala Pro Ser Pro Gln Xaa Tyr Ile His Asp Ser Pro Ser
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<212> PRT

<213> Homo sapiens

<400> 6222

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<212> DNA

<213> Homo sapiens

<400> 6223

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<212> PRT

<213> Homo sapiens

<400> 6226

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Leu	Glu	Lys	Arg	Ser	Glu	Phe	Arg	Lys	Gln	Pro	Val	Gly	His	Ser	Arg
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Gln	Gly	Asp	Phe	Ile	Lys	Cys	Val	Glu	Gln	Lys	Thr	Asp	Ala	Leu	Gly
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Ile	Phe	Asn	Ile	Glu	Met	Val	Lys	Glu	Lys	Thr	Ala	Glu	Glu	Ile	Lys
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Gln	Ile	Trp	Gln	Gln	Tyr	Phe	Ala	Ala	Lys	Asp	Thr	Val	Tyr	Ala	Val
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Pro	Thr	Phe	Leu	Cys	Ala	Leu	Pro	Arg	Arg	Glu	Gly	Tyr	Glu	Phe	Phe
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Tyr	Pro	Glu	Leu	Lys	Glu	Glu	Lys	Gly	Ile	Val	Leu	Met	Thr	Ala	Glu
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Met	Asp	Ser	Thr	Phe	Leu	Asn	Val	Ala	Glu	Ala	Gln	Cys	Ile	Ala	Asn
		180					185					190			
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		195				200						205			
Val	Glu	Thr	Phe	Asn	Leu	Arg	Pro	Asn	Glu	Phe	Lys	Tyr	Met	Ser	Val
	210				215						220				
Ile	Ala	Glu	Leu	Glu	Gln	Ser	Gly	Leu	Gly	Ala	Glu	Leu	Lys	Cys	Ala
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 <211> 830
 <212> DNA
 <213> Homo sapiens

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<210> 6228
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 35 40 45
 Ile Pro Ser Gly Thr Ile Leu Lys Ala Leu Met Glu Gly Gly Glu Asn
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5410

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720

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2340

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<211> 944

<212> PRT

<213> Homo sapiens

<400> 6230

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Asn	Ala	Glu	Val	Ala	Cys	Val	Ala	Val	His	Asp	Glu	Ser	Ala	Phe	Val
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Val	Gly	Thr	Glu	Lys	Gly	Arg	Met	Phe	Leu	Asn	Ala	Arg	Lys	Glu	Leu
65					70				75					80	
Gln	Ser	Asp	Phe	Leu	Arg	Phe	Cys	Arg	Gly	Pro	Pro	Trp	Lys	Asp	Pro
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Glu	Ala	Glu	His	Pro	Lys	Lys	Val	Gln	Arg	Gly	Glu	Gly	Gly	Gly	Arg
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Ser	Leu	Pro	Arg	Ser	Ser	Leu	Glu	His	Gly	Ser	Asp	Val	Tyr	Leu	Leu
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Arg	Lys	Met	Val	Glu	Glu	Val	Phe	Asp	Val	Leu	Tyr	Ser	Glu	Ala	Leu
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Gly	Arg	Ala	Ser	Val	Val	Pro	Leu	Pro	Tyr	Glu	Arg	Leu	Leu	Arg	Glu
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Arg Pro Ala Glu Tyr Asp Pro Lys Ala Leu Met Ala Ile Leu Glu His
180 185 190
Ser His Arg Ile Arg Phe Lys Leu Lys Arg Pro Leu Glu Asp Gly Gly
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Lys Gly Ser Arg Asp Cys Gly Leu His Gly Gln Ala Pro Lys Val Pro
225 230 235 240
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245 250 255
Leu Tyr Ser Thr Ala Leu Pro Asn His Ala Ile Arg Glu Leu Lys Gln
260 265 270
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275 280 285
Pro Met Pro Glu Pro Lys Ala Thr Gly Ala Gln Asp Phe Ser Asp Cys
290 295 300
Cys Gly Gln Lys Pro Thr Gly Pro Gly Gly Pro Leu Ile Gln Asn Val
305 310 315 320
His Ala Ser Lys Arg Ile Leu Phe Ser Ile Val His Asp Lys Ser Glu
325 330 335
Lys Trp Asp Ala Phe Ile Lys Glu Thr Glu Asp Ile Asn Thr Leu Arg
340 345 350
Glu Cys Val Gln Ile Leu Phe Asn Ser Arg Tyr Ala Glu Ala Leu Gly
355 360 365
Leu Gly Asn Met Val Pro Val Pro Tyr Arg Lys Ile Ala Cys Asp Pro
370 375 380
Glu Ala Val Glu Ile Val Gly Ile Pro Asp Lys Ile Pro Phe Lys Arg
385 390 395 400
Pro Cys Thr Tyr Gly Val Pro Lys Leu Lys Arg Ile Leu Glu Glu Arg
405 410 415
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420 425 430
Thr Gly Asn Lys Phe Thr Lys Asp Thr Thr Lys Leu Glu Pro Ala Ser
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Gly Pro Gly Thr Ser Gly Glu Leu Gly Gly Leu Arg Pro Ile Lys Ile
485 490 495
Glu Pro Glu Asp Leu Asp Ile Ile Gln Val Thr Val Pro Asp Pro Ser
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Pro Thr Ser Glu Glu Met Thr Asp Ser Met Pro Gly His Leu Pro Ser
515 520 525
Glu Asp Ser Gly Tyr Gly Met Glu Met Leu Thr Asp Lys Gly Leu Ser
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Glu Asp Ala Arg Pro Glu Glu Arg Pro Val Glu Asp Ser His Gly Asp
545 550 555 560
Val Ile Arg Pro Leu Arg Lys Gln Val Glu Leu Leu Phe Asn Thr Arg
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Tyr Ala Lys Ala Ile Gly Ile Ser Glu Pro Val Lys Val Pro Tyr Ser
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Lys Phe Leu Met His Pro Glu Glu Leu Phe Val Val Gly Leu Pro Glu

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Lys	Ile	Leu	Glu	Ala	Ser	Asn	Ser	Ile	Gln	Phe	Val	Ile	Lys	Arg	Pro
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Glu	Leu	Leu	Thr	Glu	Gly	Val	Lys	Glu	Pro	Ile	Val	Asp	Ser	Gln	Glu
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Arg	Asp	Ser	Gly	Asp	Pro	Leu	Val	Asp	Glu	Ser	Leu	Lys	Arg	Gln	Gly
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Phe	Gln	Glu	Asn	Tyr	Asp	Ala	Arg	Leu	Ser	Arg	Ile	Asp	Ile	Ala	Asn
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Thr	Leu	Arg	Glu	Gln	Val	Gln	Asp	Leu	Phe	Asn	Lys	Lys	Tyr	Gly	Glu
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Ala	Leu	Gly	Ile	Lys	Tyr	Pro	Val	Gln	Val	Pro	Tyr	Lys	Arg	Ile	Lys
705					710					715					720
Ser	Asn	Pro	Gly	Ser	Val	Ile	Ile	Glu	Gly	Leu	Pro	Pro	Gly	Ile	Pro
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Phe	Arg	Lys	Pro	Cys	Thr	Phe	Gly	Ser	Gln	Asn	Leu	Glu	Arg	Ile	Leu
			740				745						750		
Ala	Val	Ala	Asp	Lys	Ile	Lys	Phe	Thr	Val	Thr	Arg	Pro	Phe	Gln	Gly
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Leu	Ile	Pro	Lys	Pro	Asp	Glu	Asp	Asp	Ala	Asn	Arg	Leu	Gly	Glu	Lys
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Val	Ile	Leu	Arg	Glu	Gln	Val	Lys	Glu	Leu	Phe	Asn	Glu	Lys	Tyr	Gly
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Glu	Ala	Leu	Gly	Leu	Asn	Arg	Pro	Val	Leu	Val	Pro	Tyr	Lys	Leu	Ile
				805					810					815	
Arg	Asp	Ser	Pro	Asp	Ala	Val	Glu	Val	Thr	Gly	Leu	Pro	Asp	Asp	Ile
			820					825					830		
Pro	Phe	Arg	Asn	Pro	Asn	Thr	Tyr	Asp	Ile	His	Arg	Leu	Glu	Lys	Ile
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Leu	Lys	Ala	Arg	Glu	His	Val	Arg	Met	Val	Ile	Ile	Asn	Gln	Leu	Gln
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Pro	Phe	Ala	Glu	Ile	Cys	Asn	Asp	Ala	Lys	Val	Pro	Ala	Lys	Asp	Ser
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Ser	Ile	Pro	Lys	Arg	Lys	Arg	Lys	Arg	Val	Ser	Glu	Gly	Asn	Ser	Val
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Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Asn	Pro	Asp	Ser
			900					905					910		
Val	Ala	Ser	Ala	Asn	Gln	Ile	Ser	Leu	Val	Gln	Trp	Pro	Met	Tyr	Met
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<210> 6231

<211> 471

<212> DNA

<213> Homo sapiens

<400> 6231

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 Trp Arg Arg Lys Arg Gly Pro Lys Pro Pro Val Ala Pro Ile Ser Ile
 50 55 60
 Trp Asn Gly Thr Thr Pro Arg Gly Glu Pro Pro Asn His Ser Ser
 65 70 75 80
 Lys Lys Gly Thr Lys Lys Trp Ala Leu Asp Phe Ser Thr Pro Glu Thr
 85 90 95
 Gln Phe Pro Pro Pro Gly Arg Pro Phe Leu Gly Ile Pro Thr Trp Asp
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<212> PRT

<213> Homo sapiens

<400> 6234

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			20					25					30		
Glu	Ala	Leu	Met	Leu	Arg	Asp	Gly	Arg	Phe	Ala	Cys	Ala	Ile	Cys	Pro
		35				40					45				
His	Arg	Pro	Val	Leu	Asp	Thr	Leu	Ala	Met	Leu	Thr	Ala	His	Arg	Ala
	50				55					60					
Gly	Lys	Lys	His	Leu	Ser	Ser	Leu	Gln	Leu	Phe	Tyr	Gly	Lys	Lys	Gln
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Pro	Gly	Lys	Glu	Arg	Lys	Gln	Asn	Pro	Lys	His	Gln	Asn	Glu	Leu	Arg
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Arg	Glu	Glu	Thr	Lys	Ala	Glu	Ala	Pro	Leu	Leu	Thr	Gln	Thr	Arg	Leu
			100					105					110		
Ile	Thr	Gln	Ser	Ala	Leu	His	Arg	Ala	Pro	His	Tyr	Asn	Ser	Cys	Cys
		115				120						125			
Arg	Arg	Lys	Tyr	Arg	Pro	Glu	Ala	Pro	Gly	Pro	Ser	Val	Ser	Leu	Ser
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Pro	Met	Pro	Pro	Ser	Glu	Val	Lys	Leu	Gln	Ser	Gly	Lys	Ile	Ser	Arg
145				150					155					160	
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Tyr	Leu	Thr	Leu	Arg	Ser	Ser	Gly	Trp	Ile	Pro	Asp	Gly	Arg	Gly	Arg
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<210> 6235
<211> 3427
<212> DNA
<213> Homo sapiens

<400> 6235

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<210> 6236

<211> 820

<212> PRT

<213> Homo sapiens

<400> 6236

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 Lys Ala Thr Gly Ser Pro Val Ser Ile Phe Val Tyr Asp Val Lys Pro
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 Gly Ala Glu Glu Gln Thr Gln Val Ala Lys Ala Ala Phe Lys Arg Phe
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 Thr Glu Lys Cys Leu His Val Val Thr Glu Ala Val Thr Pro Leu Gly
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 Ile Tyr Leu Lys Ala Arg Val Glu Ala Gly Gly Leu Lys Glu Leu Glu
 115 120 125
 Ile Ser Trp Gly Leu His Gln Ile Val Lys Ala Leu Ser Phe Leu Val
 130 135 140
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 145 150 155 160
 Val Asp Arg Ala Gly Glu Trp Lys Leu Gly Gly Leu Asp Tyr Met Tyr
 165 170 175
 Ser Ala Gln Gly Asn Gly Gly Gly Pro Pro Arg Lys Gly Ile Pro Glu
 180 185 190
 Leu Glu Gln Tyr Asp Pro Pro Glu Leu Ala Asp Ser Ser Gly Arg Val
 195 200 205
 Val Arg Glu Lys Trp Ser Ala Asp Met Trp Arg Leu Gly Cys Leu Ile
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 Trp Glu Val Phe Asn Gly Pro Leu Pro Arg Ala Ala Leu Arg Asn

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Cys	Arg	Ala	Pro	Gly	Gly	Phe	Met	Ser	Asn	Arg	Phe	Val	Glu	Thr	Asn
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Leu	Phe	Leu	Glu	Glu	Ile	Gln	Ile	Lys	Glu	Pro	Ala	Glu	Lys	Gln	Lys
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Phe	Phe	Gln	Glu	Leu	Ser	Lys	Ser	Leu	Asp	Ala	Phe	Pro	Glu	Asp	Phe
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Cys	Arg	His	Lys	Val	Leu	Pro	Gln	Leu	Leu	Thr	Ala	Phe	Glu	Phe	Gly
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Asn	Ala	Gly	Ala	Val	Val	Leu	Thr	Pro	Leu	Phe	Lys	Val	Gly	Lys	Phe
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Leu	Ser	Ala	Glu	Glu	Tyr	Gln	Gln	Lys	Ile	Ile	Pro	Val	Val	Val	Lys
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Met	Phe	Ser	Ser	Thr	Asp	Arg	Ala	Met	Arg	Ile	Arg	Leu	Leu	Gln	Gln
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Ile	Phe	Pro	His	Val	Val	His	Gly	Phe	Leu	Asp	Thr	Asn	Pro	Ala	Ile
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Arg	Glu	Gln	Thr	Val	Lys	Ser	Met	Leu	Leu	Ala	Pro	Lys	Leu	Asn	
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Glu	Ala	Asn	Leu	Asn	Val	Glu	Leu	Met	Lys	His	Phe	Ala	Arg	Leu	Gln
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Ala	Lys	Asp	Glu	Gln	Gly	Pro	Ile	Arg	Cys	Asn	Thr	Thr	Val	Cys	Leu
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Gly	Lys	Ile	Gly	Ser	Tyr	Leu	Ser	Ala	Ser	Thr	Arg	His	Arg	Val	Leu
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Thr	Ser	Ala	Phe	Ser	Arg	Ala	Thr	Arg	Asp	Pro	Phe	Ala	Pro	Ser	Arg
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Val	Ala	Gly	Val	Leu	Gly	Phe	Ala	Ala	Thr	His	Asn	Leu	Tyr	Ser	Met
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Phe	Leu	Ser	Lys	Leu	Glu	Ser	Val	Ser	Glu	Asp	Pro	Thr	Gln	Leu	Glu
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Glu	Val	Glu	Lys	Asp	Val	His	Ala	Ala	Ser	Ser	Pro	Gly	Met	Gly	Gly
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Ala	Ala	Ala	Ser	Trp	Ala	Gly	Trp	Ala	Val	Thr	Gly	Val	Ser	Ser	Leu
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Thr	Ser	Lys	Leu	Ile	Arg	Ser	His	Pro	Thr	Thr	Ala	Pro	Thr	Glu	Thr
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 675 680 685
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 690 695 700
 Trp Ser Ser Trp Glu Ala Glu Gly Ser Trp Glu Gln Gly Trp Gln Glu
 705 710 715 720
 Pro Ser Ser Gln Glu Pro Pro Pro Asp Gly Thr Arg Leu Ala Ser Glu
 725 730 735
 Tyr Asn Trp Gly Gly Pro Glu Ser Ser Asp Lys Gly Asp Pro Phe Ala
 740 745 750
 Thr Leu Ser Ala Arg Pro Ser Thr Gln Pro Arg Pro Asp Ser Trp Gly
 755 760 765
 Glu Asp Asn Trp Glu Gly Leu Glu Thr Asp Ser Arg Gln Val Lys Ala
 770 775 780
 Glu Leu Ala Arg Lys Lys Arg Glu Glu Arg Arg Arg Glu Met Glu Ala
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<210> 6237
 <211> 494
 <212> DNA
 <213> Homo sapiens

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<210> 6238
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 <212> PRT
 <213> Homo sapiens

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	20	25	30
Ser Thr Pro Lys Asn Gly Met Ser Ser Lys Ser Arg Lys Arg Ile Met			
	35	40	45
Pro Asp Pro Val Thr Glu Pro Pro Val Thr Asp Pro Val Tyr Glu Ala			
	50	55	60
Leu Leu Tyr Cys Asn Ile Pro Ser Val Ala Glu Arg Ser Met Glu Gly			
65		70	75
His Ala Pro His His Phe Lys Leu Val Ser Val His Val Phe Ile Arg			
	85	90	95
His Gly Asp Arg Tyr Pro Leu Tyr Val Ile Pro Lys Thr Lys Arg Pro			
	100	105	110
Glu Ile Asp Cys Thr Leu Val Ala Asn Arg Lys Pro Tyr His Pro Lys			
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Leu Glu Ala Phe Ile Ser His Met Leu Arg Gly Ser Gly			
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<210> 6239

<211> 911

<212> DNA

<213> Homo sapiens

<400> 6239

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<210> 6240
<211> 235
<212> PRT
<213> Homo sapiens

<400> 6240
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35 40 45
Phe Arg Lys Phe Gln Val Trp Arg Leu Val Thr Asn Phe Leu Phe Phe
50 55 60
Gly Pro Leu Gly Phe Ser Phe Phe Phe Asn Met Leu Phe Val Phe Arg
65 70 75 80
Tyr Cys Arg Met Leu Glu Glu Gly Ser Phe Arg Gly Arg Thr Ala Asp
85 90 95
Phe Val Phe Met Phe Leu Phe Gly Gly Val Leu Met Thr Leu Leu Gly
100 105 110
Leu Leu Gly Ser Leu Phe Phe Leu Gly Gln Ala Leu Met Ala Met Leu
115 120 125
Val Tyr Val Trp Ser Arg Arg Ser Pro Arg Val Arg Val Asn Phe Phe
130 135 140
Gly Leu Leu Thr Phe Gln Ala Pro Phe Leu Pro Trp Ala Leu Met Gly
145 150 155 160
Phe Ser Leu Leu Leu Gly Asn Ser Ile Leu Val Asp Leu Leu Gly Ile
165 170 175
Ala Val Gly His Ile Tyr Tyr Phe Leu Glu Asp Val Phe Pro Asn Gln
180 185 190
Pro Gly Gly Lys Arg Leu Leu Gln Thr Pro Gly Phe Leu Lys Leu Leu
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Gln Pro Gly Pro His Leu Pro Pro Pro Gln Gln
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<210> 6241
<211> 1515
<212> DNA
<213> Homo sapiens

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<210> 6242

<211> 245

<212> PRT

<213> Homo sapiens

<400> 6242

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 Gly Glu Pro Pro Pro Pro Glu Leu Ala Leu Leu Pro Pro Pro Pro
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 Pro Pro Pro Thr Pro Ala Thr Pro Thr Ser Ser Ala Ser Asn Leu Asp
 65 70 75 80
 Leu Gly Glu Gln Arg Asp Ala Trp Glu Thr Phe Gln Lys Arg Gln Lys
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 Leu Thr Ser Glu Gly Ala Ala Lys Leu Leu Leu Asp Thr Phe Glu Tyr
 100 105 110
 Gln Gly Leu Val Lys His Thr Gly Gly Cys His Cys Gly Ala Val Arg
 115 120 125
 Phe Glu Val Trp Ala Ser Ala Asp Leu His Ile Phe Asp Cys Asn Cys
 130 135 140
 Ser Ile Cys Lys Lys Lys Gln Asn Arg His Phe Ile Val Pro Ala Ser
 145 150 155 160
 Arg Phe Lys Leu Leu Lys Gly Ala Glu His Ile Thr Thr Tyr Thr Phe
 165 170 175
 Asn Thr His Lys Ala Gln His Thr Phe Cys Lys Arg Cys Gly Val Gln
 180 185 190
 Ser Phe Tyr Thr Pro Arg Ser Asn Pro Gly Gly Phe Gly Ile Ala Pro
 195 200 205
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 Asn Met Ser Lys Glu
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<210> 6243
 <211> 326
 <212> DNA
 <213> Homo sapiens

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<210> 6244
 <211> 104
 <212> PRT
 <213> Homo sapiens

<400> 6244

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Gly Phe Leu Leu Trp Lys Ala Ile Pro Ser Phe Ala Ser Ser Thr Leu
           35           40           45
Arg Met Ser Ser Ser Leu His Ser Leu Trp Phe Val Pro Leu Val Ser
           50           55           60
Glu Glu Glu Val Leu Ile Ile Leu Ser Gly Ser Glu Cys Ser Thr Cys
65           70           75           80
Pro Tyr Val Leu Ser Tyr Pro Thr Ser Ser Leu Thr Leu Phe His Gln
           85           90           95
Phe Leu Ser Phe Ser Pro Trp Arg
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<210> 6245

<211> 6609

<212> DNA

<213> Homo sapiens

<400> 6245

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1080					

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<210> 6252

<211> 100

<212> PRT

<213> Homo sapiens

<400> 6252

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Ala	Lys	Ser	Ser	Lys	Gly	Lys	Gly	Arg	Gly	His	Ser	Gly	Glu	Asn	Ser
			20					25					30		
Ile	Ser	Gly	Lys	Thr	Gly	Ile	His	Phe	Lys	Ile	Ser	Ala	Gln	Lys	Gly
			35				40					45			
Ser	Arg	Ala	Val	Leu	Lys	Pro	Gly	Arg	Gln	Gly	Pro	Pro	Ile	Pro	Thr
			50			55					60				
Ile	Leu	Leu	Ser	Pro	Ser	Pro	Pro	Trp	Arg	Thr	Leu	Ala	Arg	Val	Tyr
65					70				75					80	
Arg	Glu	Ser	His	His	Ile	Tyr	Tyr	Glu	Ala	Arg	Ala	Leu	Gly	Tyr	Val
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<210> 6253

<211> 1953

<212> DNA

<213> Homo sapiens

<400> 6253

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 240

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420
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540
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1920

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<210> 6254

<211> 216

<212> PRT

<213> Homo sapiens

<400> 6254

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			20					25					30		
Glu	Ala	Thr	Leu	Gly	Ser	Gly	Asn	Leu	Arg	Gln	Ala	Val	Met	Leu	Pro
		35					40					45			
Glu	Gly	Glu	Asp	Leu	Asn	Glu	Trp	Ile	Ala	Val	Asn	Thr	Val	Asp	Phe
	50				55						60				
Phe	Asn	Gln	Ile	Asn	Met	Leu	Tyr	Gly	Thr	Ile	Thr	Glu	Phe	Cys	Thr
65					70				75					80	
Glu	Ala	Ser	Cys	Pro	Val	Met	Ser	Ala	Gly	Pro	Arg	Tyr	Glu	Tyr	His
			85						90					95	
Trp	Ala	Asp	Gly	Thr	Asn	Ile	Lys	Lys	Pro	Ile	Lys	Cys	Ser	Ala	Pro
		100						105					110		
Lys	Tyr	Ile	Asp	Tyr	Leu	Met	Thr	Trp	Val	Gln	Asp	Gln	Leu	Asp	Asp
		115					120					125			
Glu	Thr	Leu	Phe	Pro	Ser	Lys	Ile	Gly	Val	Pro	Phe	Pro	Lys	Asn	Phe
		130				135					140				
Met	Ser	Val	Ala	Lys	Thr	Ile	Leu	Lys	Arg	Leu	Phe	Arg	Val	Tyr	Ala
145					150				155					160	
His	Ile	Tyr	His	Gln	His	Phe	Asp	Ser	Val	Met	Gln	Leu	Gln	Glu	Glu
			165					170						175	
Ala	His	Leu	Asn	Thr	Ser	Phe	Lys	His	Phe	Ile	Phe	Phe	Val	Gln	Glu
		180					185						190		
Phe	Asn	Leu	Ile	Asp	Arg	Arg	Glu	Leu	Ala	Pro	Leu	Gln	Glu	Leu	Ile
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Glu	Lys	Leu	Gly	Ser	Lys	Asp	Arg								
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<210> 6255

<211> 622

<212> DNA

<213> Homo sapiens

<400> 6255

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240

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<210> 6256
 <211> 150
 <212> PRT
 <213> Homo sapiens

<400> 6256
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 His Pro Arg Val Val Glu Leu Pro Lys Thr Asp Glu Gly Leu Gly Phe
 35 40 45
 Asn Ile Met Gly Gly Lys Glu Gln Asn Ser Pro Ile Tyr Ile Ser Arg
 50 55 60
 Val Ile Pro Gly Gly Val Ala Asp Arg His Gly Gly Leu Lys Arg Gly
 65 70 75 80
 Asp Gln Leu Leu Ser Val Asn Gly Val Ser Val Glu Gly Glu Gln His
 85 90 95
 Glu Lys Ala Val Glu Leu Leu Lys Ala Ala Gln Gly Ser Val Lys Leu
 100 105 110
 Val Val Arg Tyr Thr Pro Arg Val Leu Glu Glu Met Glu Ala Arg Phe
 115 120 125
 Glu Lys Met Arg Ser Ala Arg Arg Gln Gln His Gln Ser Tyr Ser
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<210> 6257
 <211> 2216
 <212> DNA
 <213> Homo sapiens

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<211> 340

<212> PRT

<213> Homo sapiens

<400> 6258

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Phe	Gln	Ala	Leu	Gln	Arg	Leu	His	Met	Thr	Ile	Phe	Ser	Gln	Ser	Val
			20					25					30		
Ser	Pro	Cys	Gly	Lys	Phe	Leu	Ala	Ala	Gly	Asn	Asn	Tyr	Gly	Gln	Ile
		35					40					45			
Ala	Ile	Phe	Ser	Leu	Ser	Ser	Ala	Leu	Ser	Ser	Glu	Ala	Lys	Glu	Glu
	50					55					60				
Ser	Lys	Lys	Pro	Val	Val	Thr	Phe	Gln	Ala	His	Asp	Gly	Pro	Val	Tyr
65					70					75					80
Ser	Met	Val	Ser	Thr	Asp	Arg	His	Leu	Leu	Ser	Ala	Gly	Asp	Gly	Glu
				85					90					95	
Val	Lys	Ala	Trp	Leu	Trp	Ala	Glu	Met	Leu	Lys	Lys	Gly	Cys	Lys	Glu
			100					105					110		
Leu	Trp	Arg	Arg	Gln	Pro	Pro	Tyr	Arg	Thr	Ser	Leu	Glu	Val	Pro	Glu
		115					120					125			
Ile	Asn	Ala	Leu	Leu	Leu	Val	Pro	Lys	Glu	Asn	Ser	Leu	Ile	Leu	Ala
	130					135					140				
Gly	Gly	Asp	Cys	Gln	Leu	His	Thr	Met	Asp	Leu	Glu	Thr	Gly	Thr	Phe
145					150				155					160	
Thr	Arg	Val	Leu	Arg	Gly	His	Thr	Asp	Tyr	Ile	His	Cys	Leu	Ala	Leu
			165					170					175		
Arg	Glu	Arg	Ser	Pro	Glu	Val	Leu	Ser	Gly	Gly	Glu	Asp	Gly	Ala	Val
			180					185					190		
Arg	Leu	Trp	Asp	Leu	Arg	Thr	Ala	Lys	Glu	Val	Gln	Thr	Ile	Glu	Ser
	195						200					205			
Ile	Ser	Thr	Arg	Ser	Ala	Arg	Gly	Pro	Thr	Met	Gly	Ala	Gly	Leu	Asp
	210					215					220				
Val	Trp	Thr	Asp	Ser	Asp	Trp	Met	Val	Cys	Gly	Gly	Gly	Pro	Ala	Leu
225					230					235				240	
Thr	Leu	Trp	His	Leu	Arg	Ser	Ser	Thr	Pro	Thr	Thr	Ile	Phe	Pro	Ile
			245					250					255		
Arg	Ala	Pro	Gln	Lys	His	Val	Thr	Phe	Tyr	Gln	Asp	Leu	Ile	Leu	Ser

260 265 270
 Ala Gly Gln Gly Arg Cys Val Asn Gln Trp Gln Leu Ser Gly Glu Leu
 275 280 285
 Lys Ala Gln Val Pro Gly Ser Ser Pro Gly Leu Leu Ser Leu Ser Leu
 290 295 300
 Asn Gln Gln Pro Ala Ala Pro Glu Cys Lys Val Leu Thr Ala Ala Gly
 305 310 315 320
 Asn Ser Cys Arg Val Asp Val Phe Thr Asn Leu Gly Tyr Arg Ala Phe
 325 330 335
 Ser Leu Ser Phe
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<210> 6259
 <211> 384
 <212> DNA
 <213> Homo sapiens

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 384

<210> 6260
 <211> 128
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Arg Val Lys Ala Lys Gln Lys Pro Leu Ile Ser Asn Ser His Thr Asp
 50 55 60
 His Leu Met Gly Cys Thr Lys Ser Ala Glu Pro Gly Thr Glu Thr Ser
 65 70 75 80
 Gln Val Asn Ser Phe Ser Asp Leu Lys Ala Ser Thr Leu Val His Lys
 85 90 95
 Pro Gln Ser Asp Phe Thr Asn Asp Ala Leu Ser Pro Lys Phe Asn Leu
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115 120 125

<210> 6261
<211> 3619
<212> DNA
<213> Homo sapiens

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<210> 6262

<211> 431

<212> PRT

<213> Homo sapiens

<400> 6262

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Val	Arg	Leu	Gln	Asn	Glu	Thr	Ser	Tyr	Ser	Arg	Val	Leu	His	Gly	Tyr
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Val	Ser	Gly	Ser	Arg	Asp	Gly	Ser	Met	Gly	Leu	Trp	Glu	Val	Thr	Asp
			180					185					190		
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Lys Asn Lys Glu Leu Gly Ala Val Ser Leu Asp Gly Tyr Phe His Leu		
245	250	255
Trp Lys Ala Glu Asn Thr Leu Ser Lys Leu Leu Ser Thr Lys Leu Pro		
260	265	270
Tyr Cys Arg Glu Asn Val Cys Leu Ala Tyr Gly Ser Glu Trp Ser Val		
275	280	285
Tyr Ala Val Gly Ser Gln Ala His Val Ser Phe Leu Asp Pro Arg Gln		
290	295	300
Pro Ser Tyr Asn Val Lys Ser Val Cys Ser Arg Glu Arg Gly Ser Gly		
305	310	315
Ile Arg Ser Val Ser Phe Tyr Glu His Ile Ile Thr Val Gly Thr Gly		
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Gln Gly Ser Leu Leu Phe Tyr Asp Ile Arg Ala Gln Arg Phe Leu Glu		
340	345	350
Glu Arg Leu Ser Ala Cys Tyr Gly Ser Lys Pro Arg Leu Ala Gly Glu		
355	360	365
Asn Leu Lys Leu Thr Thr Gly Lys Gly Trp Leu Asn His Asp Glu Thr		
370	375	380
Trp Arg Asn Tyr Phe Ser Asp Ile Asp Phe Phe Pro Asn Ala Val Tyr		
385	390	395
Thr His Cys Tyr Asp Ser Ser Gly Thr Lys Leu Phe Val Ala Gly Gly		
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<211> 2508

<212> DNA

<213> Homo sapiens

<400> 6263

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2160

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<212> PRT
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Asn Asn Trp Asp Leu Val Ala Ala Ile Asn Gly Val Ile Pro Gln Glu
35 40 45
Asn Gly Ile Leu Gln Ser Glu Tyr Gly Gly Glu Thr Ile Pro Gly Pro
50 55 60
Ala Phe Asn Pro Ala Ser His Pro Ala Ser Ala Pro Thr Ser Ser Ser
65 70 75 80
Ser Ser Ala Phe Arg Pro Val Met Pro Ser Arg Gln Ile Val Glu Arg
85 90 95
Gln Pro Arg Met Leu Asp Phe Arg Val Glu Tyr Arg Asp Arg Asn Val
100 105 110
Asp Val Val Leu Glu Asp Thr Cys Thr Val Gly Glu Ile Lys Gln Ile
115 120 125
Leu Glu Asn Glu Leu Gln Ile Pro Val Ser Lys Met Leu Leu Lys Gly
130 135 140
Trp Lys Thr Gly Asp Val Glu Asp Ser Thr Val Leu Lys Ser Leu His
145 150 155 160
Leu Pro Lys Asn Asn Ser Leu Tyr Val Leu Thr Pro Asp Leu Pro Pro
165 170 175
Pro Ser Ser Ser Ser His Ala Gly Ala Leu Gln Glu Ser Leu Asn Gln
180 185 190
Asn Phe Met Leu Ile Ile Thr His Arg Glu Val Gln Arg Glu Tyr Asn
195 200 205
Leu Asn Phe Ser Gly Ser Ser Thr Ile Gln Glu Val Lys Arg Asn Val
210 215 220
Tyr Asp Leu Thr Ser Ile Pro Val Arg His Gln Leu Trp Glu Gly Trp
225 230 235 240
Pro Thr Ser Ala Thr Asp Asp Ser Met Cys Leu Ala Glu Ser Gly Leu
245 250 255
Ser Tyr Pro Cys His Arg Leu Thr Val Gly Arg Arg Ser Ser Pro Ala
260 265 270
Gln Thr Arg Glu Gln Ser Glu Glu Gln Ile Thr Asp Val His Met Val

275	280	285
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290	295	300
Asp Asp Gly Glu Val Phe Gly Met Ala Ser Ser Ala Leu Arg Lys Ser		
305	310	315
Pro Met Ile Cys Phe Leu Val Pro Glu Asn Ala Glu Asn Glu Gly Asp		
	325	330
Ala Leu Leu Gln Phe Thr Ala Glu Phe Ser Ser Arg Tyr Gly Asp Cys		
	340	345
His Pro Val Phe Phe Ile Gly Ser Leu Glu Ala Ala Phe Gln Glu Ala		
	355	360
Phe Tyr Val Lys Ala Arg Asp Arg Lys Leu Leu Ala Ile Tyr Leu His		
	370	375
His Asp Glu Ser Val Leu Thr Asn Val Phe Cys Ser Gln Met Leu Cys		
385	390	395
Ala Glu Ser Ile Val Ser Tyr Leu Ser Gln Asn Phe Ile Thr Trp Ala		
	405	410
Trp Asp Leu Thr Lys Asp Ser Asn Arg Ala Arg Phe Leu Thr Met Cys		
	420	425
Asn Arg His Phe Gly Ser Val Val Ala Gln Thr Ile Arg Thr Gln Lys		
	435	440
Thr Asp Gln Phe Pro Leu Phe Leu Ile Ile Met Gly Lys Arg Ser Ser		
	450	455
Asn Glu Val Leu Asn Val Ile Gln Gly Asn Thr Thr Val Asp Glu Leu		
465	470	475
Met Met Arg Leu Met Ala Ala Met Glu Ile Phe Thr Ala Gln Gln Gln		
	485	490
Glu Asp Ile Lys Asp Glu Asp Glu Arg Glu Ala Arg Glu Asn Val Lys		
	500	505
Arg Glu Gln Asp Glu Ala Tyr Arg Leu Ser Leu Glu Ala Asp Arg Ala		
	515	520
Lys Arg Glu Ala His Glu Arg Glu Met Ala Glu Gln Phe Arg Leu Glu		
	530	535
Gln Ile Arg Lys Glu Gln Glu Glu Glu Arg Glu Ala Ile Arg Leu Ser		
545	550	555
Leu Glu Gln Ala Leu Pro Pro Glu Pro Lys Glu Glu Asn Ala Glu Pro		
	565	570
Val Ser Lys Leu Arg Ile Arg Thr Pro Ser Gly Glu Phe Leu Glu Arg		
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Arg Phe Leu Ala Ser Asn Lys Leu Gln Ile Val Phe Asp Phe Val Ala		
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Ser Lys Gly Phe Pro Trp Asp Glu Tyr Lys Leu Leu Ser Thr Phe Pro		
	610	615
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<211> 1344

<212> DNA

<213> Homo sapiens

<400> 6265

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180
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300
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<210> 6266
<211> 240
<212> PRT
<213> Homo sapiens

<400> 6266
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			20					25					30					
Ser	Pro	Asp	Asp	Lys	Glu	Phe	Gln	Ser	Val	Glu	Glu	Glu	Met	Gln	Ser			
		35					40					45						
Thr	Val	Arg	Glu	His	Arg	Asp	Gly	Gly	His	Ala	Gly	Gly	Ile	Phe	Asn			
	50					55				60								
Arg	Tyr	Asn	Ile	Leu	Lys	Ile	Gln	Lys	Val	Cys	Asn	Lys	Lys	Leu	Trp			
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Glu	Arg	Tyr	Thr	His	Arg	Arg	Lys	Glu	Val	Ser	Glu	Glu	Asn	His	Asn			
			85					90					95					
His	Ala	Asn	Glu	Arg	Met	Leu	Phe	His	Gly	Ser	Pro	Phe	Val	Asn	Ala			
		100					105					110						
Ile	Ile	His	Lys	Gly	Phe	Asp	Glu	Arg	His	Ala	Tyr	Ile	Gly	Gly	Met			
		115				120						125						
Phe	Gly	Ala	Gly	Ile	Tyr	Phe	Ala	Glu	Asn	Ser	Ser	Lys	Ser	Asn	Gln			
	130					135					140							
Tyr	Val	Tyr	Gly	Ile	Gly	Gly	Gly	Thr	Gly	Cys	Pro	Val	His	Lys	Asp			
145					150				155					160				
Arg	Ser	Cys	Tyr	Ile	Cys	His	Arg	Gln	Leu	Leu	Phe	Cys	Arg	Val	Thr			
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Leu	Gly	Lys	Ser	Phe	Leu	Gln	Phe	Ser	Ala	Met	Lys	Met	Ala	His	Ser			
			180				185						190					
Pro	Pro	Gly	His	His	Ser	Val	Thr	Gly	Arg	Pro	Ser	Val	Asn	Gly	Leu			
		195				200						205						
Ala	Leu	Ala	Glu	Tyr	Val	Ile	Tyr	Arg	Gly	Glu	Gln	Ala	Tyr	Pro	Glu			
	210					215					220							
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<210> 6267

<211> 328

<212> DNA

<213> Homo sapiens

<400> 6267

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120

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180

atccatgacg aggaggtcct gcggtctgtc tatgaggagg ccaagggcaa cgtgctggct
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<210> 6268

<211> 83

<212> PRT

<213> Homo sapiens

<400> 6268

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 Leu Gln Ile His Asp Glu Glu Val Leu Arg Leu Leu Tyr Glu Glu Ala
 35 40 45
 Lys Gly Asn Val Leu Ala Ala Arg Tyr Pro Cys Asp Val Glu Asp Cys
 50 55 60
 Glu Ala Leu Gly Ala Leu Val Cys Arg Val Gln Leu Gly Pro Tyr Gln
 65 70 75 80
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<210> 6269

<211> 923

<212> DNA

<213> Homo sapiens

<400> 6269

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 <212> PRT
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<400> 6270

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Asn Phe Val Ser Lys Glu Glu Phe Gln Ala Val Glu Lys Lys Leu Val
      50           55           60
Glu Glu Lys Ala Ala His Ala Lys Thr Lys Val Leu Leu Ala Lys Glu
65           70           75           80
Glu Glu Lys Leu Gln Phe Ala Leu Gly Glu Val Glu Val Leu Ser Lys
      85           90           95
Gln Leu Glu Lys Glu Lys Leu Ala Phe Glu Lys Ala Leu Ser Ser Val
      100          105          110
Lys Ser Lys Val Leu Gln Glu Ser Ser Lys Lys Asp Gln Leu Ile Thr
      115          120          125
Lys Cys Asn Glu Ile Glu Ser His Ile Ile Lys Gln Glu Asp Ile Leu
      130          135          140
Asn Gly Lys Glu Asn Glu Ile Lys Glu Leu Gln Gln Val Ile Ser Gln
145          150          155          160
Gln Lys Gln Ile Phe Ser Pro Pro Pro Ala Gly Ser Val Ala Gly Ile
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Thr Cys Leu Thr Ser Gly Ser Arg Ser Ser Arg Lys Ala Thr Trp Pro
      180          185          190
Arg Cys Trp Thr Arg Ser Ile Arg Lys Pro Gln Gly His Val Arg Pro
      195          200          205
Ala Ala Thr Ser Ile Pro Gly Lys Asn Lys Met Ala Ala Ala Phe Leu
      210          215          220
Phe Ser Gly Cys Asn Pro Gln Pro Leu Pro Ser Leu Leu Trp Glu Ser
225          230          235          240
Pro Ala Ser Ser Pro Cys Tyr Phe Pro Pro Ser Trp Ile Val Val Gly
      245          250          255
Val His Lys Val Gly Ala Cys Ser Leu Gly Glu Glu Leu Gly Leu Cys
      260          265          270
Cys Leu Val Gly Thr Thr Ala Ser Phe Gly Tyr Leu Ile Pro Ser Tyr
      275          280          285
Ile Asn Ser Pro Gly Tyr Pro Val Ile Phe His Pro Thr Pro Ser Val
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<210> 6271
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 <212> DNA
 <213> Homo sapiens

<400> 6271

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<211> 296

<212> PRT

<213> Homo sapiens

<400> 6272

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<212> DNA

<213> Homo sapiens

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 <212> PRT
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<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<211> 619

<212> PRT

<213> Homo sapiens

<400> 6280

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Asn	Glu	Arg	Pro	Ser	Ala	Gly	Ser	Lys	Ala	Asn	Lys	Glu	Phe	Gly	Asp					35	40	45	
Ser	Leu	Ser	Leu	Glu	Ile	Leu	Gln	Ile	Ile	Lys	Glu	Ser	Gln	Gln	Gln					50	55	60	
His	Gly	Leu	Arg	His	Gly	Asp	Phe	Gln	Arg	Tyr	Arg	Gly	Tyr	Cys	Ser					65	70	75	80
Arg	Arg	Gln	Arg	Arg	Leu	Arg	Lys	Thr	Leu	Asn	Phe	Lys	Met	Gly	Asn					85	90	95	
Arg	His	Lys	Phe	Thr	Gly	Lys	Lys	Val	Thr	Glu	Glu	Leu	Leu	Thr	Asp					100	105	110	
Asn	Arg	Tyr	Leu	Leu	Val	Leu	Met	Asp	Ala	Glu	Arg	Ala	Trp	Ser						115	120	125	
Tyr	Ala	Met	Gln	Leu	Lys	Gln	Glu	Ala	Asn	Thr	Glu	Pro	Arg	Lys	Arg					130	135	140	
Phe	His	Leu	Leu	Ser	Arg	Leu	Arg	Lys	Ala	Val	Lys	His	Ala	Glu	Glu					145	150	155	160
Leu	Glu	Arg	Leu	Cys	Lys	Ser	Asn	Arg	Val	Asp	Ala	Lys	Thr	Lys	Leu					165	170	175	
Glu	Ala	Gln	Ala	Tyr	Thr	Ala	Tyr	Leu	Ser	Gly	Met	Leu	Arg	Phe	Glu					180	185	190	
His	Gln	Glu	Trp	Lys	Ala	Ala	Ile	Glu	Ala	Phe	Asn	Lys	Cys	Lys	Thr					195	200	205	
Ile	Tyr	Glu	Lys	Leu	Ala	Ser	Ala	Phe	Thr	Glu	Glu	Gln	Ala	Val	Leu					210	215	220	
Tyr	Asn	Gln	Arg	Val	Glu	Glu	Ile	Ser	Pro	Asn	Ile	Arg	Tyr	Cys	Ala					225	230	235	240
Tyr	Asn	Ile	Gly	Asp	Gln	Ser	Ala	Ile	Asn	Glu	Leu	Met	Gln	Met	Arg					245	250	255	
Leu	Arg	Ser	Gly	Gly	Thr	Glu	Gly	Leu	Leu	Ala	Glu	Lys	Leu	Glu	Ala					260	265	270	
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Phe	Leu	Leu	Gly	Leu	Ala	Asp	Asn	Glu	Ala	Ala	Ile	Val	Gln	Ala	Glu					305	310	315	320
Ser	Glu	Glu	Thr	Lys	Glu	Arg	Leu	Phe	Glu	Ser	Met	Leu	Ser	Glu	Cys					325	330	335	
Arg	Asp	Ala	Ile	Gln	Val	Val	Arg	Glu	Glu	Leu	Lys	Pro	Asp	Gln	Lys								

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 <212> DNA
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<210> 6282

<211> 162

<212> PRT

<213> Homo sapiens

<400> 6282

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Ala	Glu	Ile	Thr	Ser	Lys	Ile	Ala	Arg	Val	Pro	Arg	Leu	Pro	Pro	Asp
			20					25					30		
Glu	Lys	Lys	Gln	Met	Val	Ala	Asn	Val	Glu	Lys	Gln	Leu	Glu	Glu	Ala
		35					40					45			
Lys	Glu	Leu	Leu	Glu	Gln	Met	Asp	Leu	Glu	Val	Arg	Glu	Ile	Pro	Pro
	50					55					60				
Gln	Ser	Arg	Gly	Met	Tyr	Ser	Asn	Arg	Met	Arg	Ser	Tyr	Lys	Gln	Glu
65					70					75					80
Met	Gly	Lys	Leu	Glu	Thr	Asp	Phe	Lys	Arg	Ser	Arg	Ile	Ala	Tyr	Ser
				85					90					95	
Asp	Glu	Val	Arg	Asn	Glu	Leu	Leu	Gly	Asp	Asp	Gly	Asn	Ser	Ser	Glu
			100					105					110		
Asn	Gln	Arg	Ala	His	Leu	Leu	Asp	Asn	Thr	Glu	Arg	Leu	Glu	Arg	Ser
		115					120					125			
Ser	Arg	Arg	Leu	Glu	Ala	Gly	Tyr	Gln	Ile	Ala	Val	Glu	Thr	Gly	Glu
	130					135					140				
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<210> 6283

<211> 2312

<212> DNA

<213> Homo sapiens

<400> 6283

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<210> 6284

<211> 122

<212> PRT

<213> Homo sapiens

<400> 6284

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			20					25					30		
Lys	Pro	Ile	His	Val	Phe	Phe	Gly	Ala	Ala	Ile	Leu	Ser	Leu	Ser	Ile
		35					40				45				
Ala	Ser	Val	Ile	Ser	Gly	Ile	Asn	Glu	Lys	Leu	Phe	Phe	Ser	Leu	Lys
	50					55				60					
Asn	Thr	Thr	Arg	Pro	Tyr	His	Ser	Leu	Pro	Ser	Glu	Ala	Val	Phe	Ala
65				70					75					80	
Asn	Ser	Thr	Gly	Met	Leu	Val	Val	Ala	Phe	Gly	Leu	Leu	Val	Leu	Tyr
			85					90					95		
Ile	Leu	Leu	Ala	Ser	Ser	Trp	Lys	Arg	Pro	Glu	Pro	Gly	Ile	Leu	Thr
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<210> 6285

<211> 2542

<212> DNA

<213> Homo sapiens

<400> 6285

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 <213> Homo sapiens

<400> 6286
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 <212> DNA
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<211> 269
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 <213> Homo sapiens

<400> 6288

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Ser Val Lys Leu Asp Glu His Ile Ile Pro Leu Gly Ser Met Ala Ile
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Asn Ser Ile Ser Lys Leu Thr Gln Leu Thr Gln Ser Ser Met Tyr Ser
65           70           75           80
Leu Pro Asn Ala Pro Thr Leu Ala Asp Leu Glu Asp Asp Thr His Glu
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Ile Phe Glu Leu Asp Ser Cys Asn Gly Ser Gly Lys Val Cys Leu Val
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Tyr Lys Ser Gly Lys Pro Ala Leu Ala Glu Asp Thr Glu Ile Trp Phe
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145          150          155          160
Tyr Tyr Arg Leu Leu Ile Thr His Leu Gly Leu Pro Gln Trp Gln Tyr
          165          170          175
Ala Phe Thr Ser Tyr Gly Ile Ser Pro Gln Ala Lys Gln Trp Phe Ser
          180          185          190
Met Tyr Lys Pro Ile Thr Tyr Asn Thr Asn Leu Leu Thr Glu Glu Thr
          195          200          205
Asp Ser Phe Val Asn Lys Leu Asp Pro Ser Lys Val Phe Lys Ser Lys
          210          215          220
Asn Lys Ile Val Ile Pro Lys Lys Lys Gly Pro Val Gln Pro Ala Gly
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Gly Gln Lys Gly Pro Ser Gly Pro Ser Gly Pro Ser Thr Ser Ser Thr
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Ser Lys Ser Ser Ser Gly Ser Gly Asn Pro Thr Arg Lys
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<210> 6289
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 <212> DNA
 <213> Homo sapiens

<400> 6289

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<211> 172

<212> PRT

<213> Homo sapiens

<400> 6290

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Gln	Arg	Ser	Lys	Gln	Ala	Leu	Gln	Glu	Leu	Thr	Gln	Asn	Gln	Val	Val

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Ala	Lys	Leu	Val	Asn	Ile	Arg	Lys	Glu	Met	Leu	Met	Leu	His	Glu	Lys
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Thr	Ser	Lys	Leu	Lys	Lys	Arg	Ala	Leu	Lys	Leu	Gln	Gln	Lys	Arg	Gln
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Lys	Glu	Glu	Leu	Glu	Arg	Glu	Gln	Gln	Arg	Glu	Lys	Gly	Phe	Glu	Arg
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 <211> 2718
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 <213> Homo sapiens

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<210> 6292

<211> 497

<212> PRT

<213> Homo sapiens

<400> 6292

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Leu	Ser	Arg	Pro	Gln	Pro	Pro	Pro	Asp	Pro	Leu	Leu	Leu	Gln	Arg	Leu
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Asp	Leu	Leu	Glu	Glu	Ile	Asp	Cys	Thr	Glu	Glu	Glu	Met	Met	Val	
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Val	Pro	Ser	Pro	Glu	Gly	Met	Ser	Glu	Ile	Tyr	Leu	Arg	Cys	Gln	Asp
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Gly	Arg	Thr	Met	Ala	Asp	Ser	Ser	Tyr	Thr	Ser	Glu	Val	Gln	Ala	Ile
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Leu	Ala	Phe	Leu	Ser	Leu	Gln	His	Gly	Gln	Trp	Gly	Pro	Arg	Gln	Pro
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Pro	Pro	Arg	Pro	Asp	Ala	Ser	Ala	Glu	Gly	Leu	Asn	Pro	Tyr	Gly	Leu
			325					330					335		
Val	Ala	Pro	Arg	Phe	Gln	Arg	Lys	Phe	Lys	Ala	Lys	Gln	Leu	Thr	Pro

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 355 360 365
 Ala Gln Leu Arg Phe Ile Gln Ala Trp Gln Ser Leu Pro Asp Phe Gly
 370 375 380
 Ile Ser Tyr Val Met Val Arg Phe Lys Gly Ser Arg Lys Asp Glu Ile
 385 390 395 400
 Leu Gly Ile Ala Asn Asn Arg Leu Ile Arg Ile Asp Leu Ala Val Gly
 405 410 415
 Asp Val Val Lys Thr Trp Arg Phe Ser Asn Met Arg Gln Trp Asn Val
 420 425 430
 Asn Trp Asp Ile Arg Gln Val Ala Ile Glu Phe Asp Glu His Ile Asn
 435 440 445
 Val Ala Phe Ser Cys Val Ser Ala Ser Cys Arg Ile Val His Glu Tyr
 450 455 460
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<210> 6293
 <211> 750
 <212> DNA
 <213> Homo sapiens

<400> 6293
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<400> 6294
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 35 40 45
 Arg Ser Arg Leu Lys Val Arg Phe Cys Thr Asn Glu Ser Gln Lys Ser
 50 55 60
 Arg Ala Glu Leu Val Gly Gln Leu Gln Arg Leu Gly Phe Asp Ile Ser
 65 70 75 80
 Glu Gln Glu Val Thr Ala Pro Ala Pro Ala Ala Cys Gln Ile Leu Lys
 85 90 95
 Glu Arg Gly Leu Arg Pro Tyr Leu Leu Ile His Asp Gly Val Arg Ser
 100 105 110
 Glu Phe Asp Gln Ile Asp Thr Ser Asn Pro Asn Cys Val Val Ile Ala
 115 120 125
 Asp Ala Gly Glu Ser Phe Ser Tyr Gln Asn Met Asn Asn Ala Phe Gln
 130 135 140
 Val Leu Met Glu Leu Glu Lys Pro Val Leu Ile Ser Leu Gly Lys Gly
 145 150 155 160
 Arg Tyr Tyr Lys Glu Thr Ser Gly Leu Met Leu Asp Val Gly Pro Tyr
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 Met Lys Ala Leu Glu Tyr Ala Cys Gly Ile Lys Ala Glu Val Val Gly
 180 185 190
 Lys Pro Ser Pro Glu Phe Phe Lys Ser Ala Leu Gln Ala Ile Gly Val
 195 200 205
 Glu Ala His Gln Ala Val Met Ile Gly Asp Asp Ile Val Gly Asp Val
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<211> 399

<212> PRT

<213> Homo sapiens

<400> 6296

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			20					25					30		
Ala	Cys	Gly	Cys	Arg	Leu	Val	Leu	Gly	Gly	Arg	Asp	Asp	Val	Ser	Ala
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65					70					75					80
Arg	Gln	Pro	Arg	Ala	Ala	Ala	Pro	Ser	Phe	Phe	Phe	Ser	Ser	Ile	Lys
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Gly	Gly	Arg	Arg	Ser	Ile	Ser	Phe	Ser	Val	Gly	Ala	Ser	Ser	Val	Val
			100					105					110		
Gly	Ser	Gly	Gly	Ser	Ser	Asp	Lys	Gly	Lys	Leu	Ser	Leu	Gln	Asp	Val
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His	Cys	Arg	Arg	Cys	Gly	Lys	Cys	Phe	Cys	Asp	Arg	Cys	Cys	Ser	Gln	
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Lys	Val	Pro	Leu	Arg	Arg	Met	Cys	Phe	Val	Asp	Pro	Val	Arg	Gln	Cys	
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 <211> 1466
 <212> DNA
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 Ile Ser Asp Tyr Asp Gln Ile Ile Asp Tyr Val Glu Arg Thr Phe Thr
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 Ala Thr Thr Asp Leu Met Lys Leu Asp His Glu Glu Glu Pro Gln Leu
 195 200 205
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 225 230 235 240
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 Asn Glu Gly Gln Lys Cys Glu Leu Trp Leu Cys Gly Cys Ala Phe Thr
 260 265 270
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 275 280 285
 Gly Leu Ser Lys Lys Tyr Trp Glu Asp Gly Ser Arg Pro Asn Leu Gln

290		295		300
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305		310		315
Gly Asp Ile His Thr Thr Leu Leu Ser Ala Val Ile Pro Asn Ala Phe				
	325		330	335
Arg Leu Val Lys Arg Lys Pro Pro Ser Phe Phe Gly Ala Ser Phe Leu				
	340		345	350
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Lys Lys Tyr Ile				
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<210> 6301

<211> 911

<212> DNA

<213> Homo sapiens

<400> 6301

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<212> PRT

<213> Homo sapiens

<400> 6302

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 50 55 60
 Gly Ser Leu Thr Pro Pro Val Thr Pro Pro Ile Thr Pro Ser Ser Ser
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 Phe Arg Ser Ser Thr Pro Thr Gly Ser Glu Tyr Asp Glu Glu Glu Val
 85 90 95
 Asp Tyr Glu Glu Ser Asp Ser Asp Glu Ser Trp Thr Thr Glu Ser Ala
 100 105 110
 Ile Ser Ser Glu Ala Ile Leu Ser Ser Met Cys Met Asn Gly Gly Glu
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 145 150 155 160
 Ile Arg Val Arg Lys Pro Phe Lys Cys Arg Cys Gly Lys Ser Tyr Lys
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<212> DNA

<213> Homo sapiens

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35 40 45
Asp Ser His Leu Trp Lys Leu Leu Asp Arg His Ala Asn Thr Ile Arg
50 55 60
Leu Phe Val Leu Leu Pro Glu Gln Ser Pro Val Ser Tyr Ser Lys Arg
65 70 75 80
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Cys Glu Arg Val Lys Gly Pro Val Gly Ser Leu Lys Ser Val Glu Ala
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Ile Leu Glu Glu Ser Thr Glu Lys Leu Lys Ser Leu Ser Leu Gln Gln
115 120 125
Gln Gln Asp Gly Asp Asn Gly Asp Ser Ser Lys Ser Thr Glu Thr Ser
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<212> DNA
<213> Homo sapiens

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<211> 474

<212> PRT

<213> Homo sapiens

<400> 6306

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 260 265 270
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	325	330
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	340	345
Lys Ser Asp Leu Phe Gln Asp Asp Leu Tyr Pro Asp Thr Ala Gly Pro		350
	355	360
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	370	375
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<211> 2119

<212> DNA

<213> Homo sapiens

<400> 6307

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<210> 6308

<211> 483

<212> PRT

<213> Homo sapiens

<400> 6308

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Phe Ile Gln Arg Phe Glu Met Lys Arg Ser Pro Glu Glu Lys Gln Glu
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Met Thr His Ile Cys Lys Glu Gln Thr Val Gln Tyr Ile Leu Thr Met
 85          90          95
Val Asp Asp Met Leu Gln Glu Asn His Gln Arg Val Ser Ile Phe Phe
100          105          110
Asp Tyr Ala Arg Cys Ser Lys Asn Thr Ala Trp Pro Tyr Phe Leu Pro
115          120          125
Met Leu Asn Arg Gln Asp Pro Phe Thr Val His Met Ala Ala Arg Ile
130          135          140
Ile Ala Lys Leu Ala Ala Trp Gly Lys Glu Leu Met Glu Gly Ser Asp
145          150          155          160
Leu Asn Tyr Tyr Phe Asn Trp Ile Lys Thr Gln Leu Ser Ser Gln Lys
165          170          175
Leu Arg Gly Ser Gly Val Ala Val Glu Thr Gly Thr Val Ser Ser Ser
180          185          190
Asp Ser Ser Gln Tyr Val Gln Cys Val Ala Gly Cys Leu Gln Leu Met
195          200          205
Leu Arg Val Asn Glu Tyr Arg Phe Ala Trp Val Glu Ala Asp Gly Val
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225          230          235          240
Tyr Gln Met Ile Phe Ser Ile Trp Leu Leu Ala Phe Ser Pro Gln Met
245          250          255
Cys Glu His Leu Arg Arg Tyr Asn Ile Ile Pro Val Leu Ser Asp Ile
260          265          270
Leu Gln Glu Ser Val Lys Glu Lys Val Thr Arg Ile Ile Leu Ala Ala
275          280          285
Phe Arg Asn Phe Leu Glu Lys Ser Thr Glu Arg Glu Thr Arg Gln Glu
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Tyr Ala Leu Ala Met Ile Gln Cys Lys Val Leu Lys Gln Leu Glu Asn
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325          330          335
Phe Leu Leu Glu Lys Leu Gly Glu Ser Val Gln Asp Leu Ser Ser Phe
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Asp Glu Tyr Ser Ser Glu Leu Lys Ser Gly Arg Leu Glu Trp Ser Pro
355          360          365
Val His Lys Ser Glu Lys Phe Trp Arg Glu Asn Ala Val Arg Leu Asn
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Glu Lys Asn Tyr Glu Leu Leu Lys Ile Leu Thr Lys Leu Leu Glu Val
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Ser Asp Asp Pro Gln Val Leu Ala Val Ala Ala His Asp Val Gly Glu

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 420 425 430
 Gly Lys Gln Leu Val Met Asn His Met His His Glu Asp Gln Gln Val
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 Arg Tyr Asn Ala Leu Leu Ala Val Gln Lys Leu Met Val His Asn Trp
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 35 40 45
 Leu Arg Leu Pro Glu Pro Gln Leu Leu Pro Glu Arg Arg Val Leu Ala
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75

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<210> 6311

<211> 1548

<212> DNA

<213> Homo sapiens

<400> 6311

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<210> 6312

<211> 234

<212> PRT

<213> Homo sapiens

<400> 6312

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Gln	Ile	Lys	Thr	Phe	Leu	Leu	His	Ser	His	Gly	Leu	Ala	His	Val	Trp
		20					25						30		
Leu	Asp	Glu	Tyr	Lys	Glu	Gln	Tyr	Phe	Ser	Leu	Arg	Pro	Asp	Leu	Lys
	35					40						45			
Thr	Lys	Ser	Tyr	Gly	Asn	Ile	Ser	Glu	Arg	Val	Glu	Leu	Arg	Lys	Lys
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Met	Gln	Ile	Ser	Gly	Ser	His	Ala	Lys	Pro	Gln	Gln	Pro	Ile	Phe	Val
			85					90						95	
Asn	Arg	Gly	Pro	Lys	Arg	Pro	Lys	Val	Leu	Gln	Arg	Gly	Arg	Leu	Tyr
		100					105						110		
His	Leu	Gln	Thr	Asn	Lys	Cys	Leu	Val	Ala	Gln	Gly	Arg	Pro	Ser	Gln
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			165					170						175	
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		180						185					190		
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		195					200					205			
Asp	Pro	Leu	Gly	Gln	Lys	Gly	Ser	Val	Ala	Met	Ala	Ile	Cys	Asp	Gly
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225					230										

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<211> 725

<212> DNA

<213> Homo sapiens

<400> 6313

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<211> 175

<212> PRT

<213> Homo sapiens

<400> 6314

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			20					25					30		
His	Pro	Ser	Thr	Asn	Ser	Leu	Leu	Arg	Glu	Gln	Ile	Ser	Leu	Tyr	Pro
		35					40					45			
Glu	Val	Lys	Gly	Glu	Ile	Ala	Arg	Lys	Asp	Glu	Lys	Leu	Leu	Ser	Phe
	50				55					60					
Leu	Lys	Asp	Val	Tyr	Val	Asp	Ser	Lys	Asp	Pro	Val	Ser	Ser	Leu	Gln
65				70						75				80	
Val	Lys	Ala	Ala	Glu	Thr	Cys	Gln	Glu	Pro	Lys	Glu	Phe	Arg	Leu	Pro
			85					90					95		
Lys	Asp	His	His	Phe	Asp	Met	Ile	Asn	Ile	Lys	Ser	Ile	Pro	Lys	Gly
		100						105					110		
Lys	Ile	Ser	Ile	Val	Glu	Ala	Leu	Thr	Leu	Leu	Asn	Asn	His	Lys	Leu
	115						120					125			
Phe	Pro	Glu	Thr	Trp	Thr	Ala	Glu	Lys	Ile	Met	Gln	Glu	Tyr	Gln	Leu
	130					135					140				
Glu	Gln	Lys	Asp	Val	Asn	Ser	Leu	Leu	Lys	Tyr	Phe	Val	Thr	Phe	Glu
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<210> 6315
 <211> 378
 <212> DNA
 <213> Homo sapiens

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<210> 6316
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 35 40 45
 Asp Glu Ala Asp Glu Lys Gly Trp Phe Pro Leu His Glu Ala Val Val
 50 55 60
 Gln Pro Ile Gln Gln Ile Leu Glu Ile Val Leu Asp Ala Ser Tyr Lys
 65 70 75 80
 Thr Leu Trp Glu Phe Lys Thr Cys Asp Gly Glu Thr Pro Leu Thr Leu
 85 90 95
 Ala Val Lys Ala Gly Leu Val Glu Asn Val Arg Thr Leu Leu Glu Lys
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 Gly Val Trp Pro Asn Thr Lys Asn Asp Lys Gly Glu Thr Pro
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 <212> DNA
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<212> PRT

<213> Homo sapiens

<400> 6318

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Leu	Arg	Ser	Arg	Gly	Cys	Leu	Arg	Ala	Gly	Ser	Ser	Ser	Trp	Tyr	Ser
			20					25					30		
Thr	Thr	Thr	Leu	Ser	Ser	Ala	Ser	Met	Ser	Trp	Ser	Ser	Ser	Ser	Ser
		35					40					45			
Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Met	Gly	Ser	Ser
	50				55						60				
Gly	Thr	Phe	Thr	Ser	Pro	Glu	Cys	Arg	Cys	Leu	Tyr	Asp	Val	Lys	Pro

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<210> 6322

<211> 196

<212> PRT

<213> Homo sapiens

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35 40 45
Gln Asp Met Glu Gln Gln Tyr Leu Ser Thr Gly Tyr Leu Gln Ile Ala
50 55 60
Glu Arg Arg Glu Pro Ile Gly Ser Met Ser Ser Met Glu Val Asn Val
65 70 75 80
Asp Met Leu Glu Gln Met Asp Leu Met Asp Ile Ser Asp Gln Glu Ala
85 90 95
Leu Asp Val Phe Leu Asn Ser Gly Gly Glu Glu Asn Thr Val Leu Ser
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Pro Ala Leu Gly Pro Glu Ser Ser Thr Cys Gln Asn Glu Ile Thr Leu
115 120 125
Gln Val Pro Asn Pro Ser Glu Leu Arg Ala Lys Pro Pro Ser Ser Ser
130 135 140
Ser Thr Cys Thr Asp Ser Ala Thr Arg Asp Ile Ser Glu Gly Gly Glu
145 150 155 160
Ser Pro Val Val Gln Ser Asp Glu Glu Glu Val Gln Val Asp Thr Ala
165 170 175
Leu Ala Thr Ser His Thr Asp Arg Glu Ala Thr Pro Asp Gly Gly Glu
180 185 190
Asp Ser Asp Ser
195

What is claimed is:

1. An isolated nucleic acid molecule encoding a polypeptide comprising an amino acid sequence that is at least 85% identical to a polypeptide including an amino acid sequence selected from the group consisting of SEQ ID NO:2 n , wherein n is any integer 1-3161, or the complement thereof.
2. The isolated nucleic acid molecule of claim 1, said molecule hybridizing under stringent conditions to a nucleic acid sequence complementary to a nucleic acid molecule comprising the sequence of nucleotides selected from the group consisting of SEQ ID NO:2 n , wherein n is any integer 1-3161, or the complement thereof.
3. The isolated nucleic acid molecule of claim 1, said molecule encoding a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2 n , wherein n is any integer 1-3161, or an amino acid sequence comprising one or more conservative substitutions in the amino acid sequence selected from the group consisting of SEQ ID NO: 2 n .
4. The isolated nucleic acid molecule of claim 1, wherein said molecule encodes a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2 n , wherein n is any integer 1-3161.
5. The isolated nucleic acid molecule of claim 1, wherein said molecule comprises the sequence of nucleotides selected from the group consisting of SEQ ID NO:2 n -1, wherein n is any integer 1-3161, or the complement thereof.
6. An oligonucleotide less than 100 nucleotides in length and comprising at least 10 contiguous nucleotides selected from the group consisting of SEQ ID NO:2 n -1, wherein n is any integer 1-3161, or the complement thereof.
7. A vector comprising the nucleic acid molecule of claim 1.

8. The vector of claim 7, wherein said vector is an expression vector.
9. A host cell comprising the isolated nucleic acid molecule of claim 1.
10. A substantially purified polypeptide comprising an amino acid sequence at least 80% identical to a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2*n*, wherein *n* is any integer 1-3161.
11. The polypeptide of claim 10, wherein said polypeptide comprises the amino acid sequence selected from the group consisting of SEQ ID NO: 2*n*, wherein *n* is any integer 1-3161.
12. An antibody that selectively binds to the polypeptide of claim 10.
13. A pharmaceutical composition comprising a therapeutically or prophylactically effective amount of a therapeutic selected from the group consisting of:
 - a) the nucleic acid of claim 1;
 - b) the polypeptide of claim 10; and
 - c) the antibody of claim 12;and a pharmaceutically acceptable carrier.
14. A kit comprising in one or more containers, a therapeutically or prophylactically effective amount of the pharmaceutical composition of claim 13.
15. A method of producing the polypeptide of claim 10, said method comprising culturing the host cell of claim 9 under conditions in which the nucleic acid molecule is expressed.
16. A method of detecting the presence of the polypeptide of claim 10 in a sample, comprising contacting the sample with a compound that selectively binds to said polypeptide under conditions allowing the formation of a complex between said polypeptide and said

compound, and detecting said complex, if present, thereby identifying said polypeptide in said sample.

17. A method of detecting the presence of a nucleic acid molecule of claim 1 in a sample, the method comprising contacting the sample with a nucleic acid probe or primer that selectively binds to the nucleic acid molecule and determining whether the nucleic acid probe or primer bound to the nucleic acid molecule of claim 1 is present in the sample.

18. A method for modulating the activity of the polypeptide of claim 10, the method comprising contacting a cell sample comprising the polypeptide of claim 10 with a compound that binds to said polypeptide in an amount sufficient to modulate the activity of the polypeptide.

19. The use of a therapeutic in the manufacture of a medicament for treating a syndrome associated with a ORFX-associated disorder, wherein said therapeutic is selected from the group consisting of:

- a) the nucleic acid of claim 1;
- b) the polypeptide of claim 10; and
- c) the antibody of claim 12.

20. A method for screening for a modulator of activity or of latency or predisposition to an ORFX-associated disorder, said method comprising:

- a) contacting a test compound with the polypeptide of claim 10; and
- b) determining if said test compound binds to said polypeptide,

wherein binding of said test compound to said polypeptide indicates the test compound is a modulator of activity or of latency or predisposition to an ORFX-associated disorder.

21. A method for screening for a modulator of activity or of latency or predisposition to an ORFX-associated disorder, said method comprising:

- a) administering a test compound to a test subject at an increased risk ORFX-associated disorder, wherein said test subject recombinantly expresses a polypeptide encoded by the nucleotide of claim 1;

- b) measuring expression the activity of said protein in said test subject;
- c) measuring the activity of said protein in a control subject that recombinantly expresses said protein and is not at increased risk for an ORFX-associated disorder; and
- d) comparing expression of said protein in said test subject and said control subject, wherein a change in the activity of said protein in said test subject relative to said control subject indicates the test compound is a modulator or of latency of predisposition to an ORFX-associated disorder.

22. The method of claim 20, wherein said test animal is a recombinant test animal that expresses a test protein transgene or expresses said transgene under the control of a promoter at an increased level relative to a wild-type test animal, and wherein said promoter is not the native gene promoter of said transgene.

23. A method for determining the presence of or predisposition to a disease associated with altered levels of a polypeptide of claim 11 in a subject, the method comprising:

- a) measuring the amount of the polypeptide in a sample from said subject; and
- b) comparing the amount of said polypeptide in step (a) to the amount of the polypeptide present in a control sample,

wherein an alteration in the level of the polypeptide in step (a) as compared to the control sample indicates the presence of or predisposition to a disease in said subject.

24. The method of claim 23, wherein said subject is a human.

25. A method for determining the presence of or predisposition to a disease associated with altered levels the nucleic acid molecule of claim 1 in a subject, the method comprising:

- a) measuring the amount of the nucleic acid in a sample from the mammalian subject; and
- b) comparing the amount of said nucleic acid in step (a) to the amount of the nucleic acid present in a control sample,

wherein an alteration in the level of the nucleic acid in step (a) as compared to the control sample indicates the presence of or predisposition to said disease in said subject.

26. The method of claim 25, wherein said subject is a human.

27. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject a polypeptide of claim 10 in an amount sufficient to alleviate or prevent said pathological condition.

28. The method of claim 27, wherein said subject is a human.

29. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject a nucleic acid molecule of claim 1 in an amount sufficient to alleviate or prevent said pathological condition.

30. The method of claim 29, wherein said subject is a human.

31. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject an antibody of claim 12 in an amount sufficient to alleviate or prevent said pathological condition.

32. The method of claim 31, wherein said subject is a human.

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(57) Abstract: The present invention provides open reading frames encoding isolated polypeptides, as well as polynucleotides en-
coding ORFX and antibodies that immunospecifically bind to ORFX or any derivative, variant, mutant, or fragment of the ORFX
polypeptides, polynucleotides or antibodies. The invention additionally provides methods in which the ORFX polypeptide, polynu-
cleotide and antibody are used in detection and treatment of a broad range of pathological states, as well as to other uses.

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INTERNATIONAL SEARCH REPORT

International Application No
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A. CLASSIFICATION OF SUBJECT MATTER

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

BIOSIS, EMBASE, MEDLINE, CAB Data, PAJ, EPO-Internal, WPI Data, STRAND

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	COLE S.T.: "Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence." NATURE, vol. 393, 11 June 1998 (1998-06-11), XP002144873 sequence	
A	--- LAMERDIN J.E.: "Sequence analysis of a 3.5 Mb contig in human 19p13.3 containing a serine protease gene cluster." EMEST DATABASE ENTRY, 8 February 1999 (1999-02-08), XP002144874 sequence --- -/--	

☒ Further documents are listed in the continuation of box C.

☐ Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	<p>M.D. ADAMS ET AL.: "The genome sequence of <i>Drosophila melanogaster</i>." SCIENCE, vol. 287, 24 March 2000 (2000-03-24), pages 2185-2195, XP002144875 the whole document -----</p>	6

INTERNATIONAL SEARCH REPORT

International application No.
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Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 27 to 32 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

claims 1 to 32 partially

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.